

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: Piney Run
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A01R_PIA01A00
SEGMENT SIZE: 3.52 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Mouth of unnamed lake on Piney Run
RIVER MILE: 3.52
LATITUDE: 39.29389 **LONGTITUDE:** -77.73583

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River
RIVER MILE: 0.00
LATITUDE: 39.32139 **LONGTITUDE:** -77.71389

Segment begins at the mouth of an unnamed lake on Piney Run downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (5 of 22 samples - 22.7%) were recorded at DEQ's ambient water quality monitoring station (1aPIA001.80) at the Route 671 bridge to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: Catoctin Creek
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A02R_CAX01A00
SEGMENT SIZE: 7.2 - Miles
INITIAL LISTING: 1994 **TMDL Schedule** - 2002

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Milltown Creek
RIVER MILE: 7.20
LATITUDE: 39.24056 **LONGTITUDE:** -77.59639

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River
RIVER MILE: 0.00
LATITUDE: 39.27611 **LONGTITUDE:** -77.55139

Segment begins at the confluence of Milltown Creek to Catoctin Creek, approximately 1.2 rivermiles downstream of Route 673, and continues downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (6 of 51 samples - 11.8%) were recorded at DEQ's ambient water quality monitoring station (1aCAX004.57) at the Route 663 bridge to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE NPS

A fecal coliform TMDL for the Catoctin Creek watershed was submitted to the U.S. EPA on April 29, 2002 and approved May 31, 2002. The sources of fecal coliform bacteria requiring reductions are livestock and wildlife waste delivered directly to the stream, and human contributions from straight pipes.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: South Fork Catoctin Creek
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A02R_SOC01A00
SEGMENT SIZE: 17.26 - Miles
INITIAL LISTING: 1994 **TMDL Schedule** - 2002

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of South Fork Catoctin Creek
RIVER MILE: 17.26
LATITUDE: 39.16778 **LONGTITUDE:** -77.79583

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Catoctin Creek
RIVER MILE: 0.00
LATITUDE: 39.20944 **LONGTITUDE:** -77.62167

Segment begins at the headwaters of South Fork Catoctin Creek and continues downstream to the confluence with Catoctin Creek. The segment length was extended from the 1998 303(d) listing to account for upstream special study monitoring stations on the South Fork Catoctin Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform - 5.77 miles, Fecal Coliform - 11.49 miles

Sufficient fecal coliform bacteria exceedances were recorded at DEQ's water quality monitoring stations at the Route 698 bridge (1aS0C001.66; 6 of 22 samples - 27.3%), the Route 738 bridge (1aS0C007.06; 2 of 11 samples - 18.2%), and the Route 690 bridge (1aS0C012.38; 3 of 12 samples - 25%) to assess 5.77 stream miles as not supporting and 11.49 stream miles as partially supporting of the Clean Water Act's (CWA) Swimmable Use goal for the 2002 305(b) report. The segment is considered not supporting from the confluence of an unnamed tributary to the South Fork Catoctin Creek, approximately 0.55 rivermiles upstream of the Route 9 bridge, downstream to its confluence with Catoctin Creek. The segment is considered partially supporting from the headwaters downstream to the confluence with the unnamed tributary roughly 0.55 rivermiles upstream of Route 9.

Citizen monitoring at station 1aS0C-4-LWC in the Purcellville Nature Park finds a high probability of adverse conditions. As a result, 8.52 stream miles from the headwaters of the South Fork Catoctin Creek downstream to the confluence of an unnamed tributary, approximately 0.75 rivermiles upstream from the Rt. 287 bridge, were assessed as fully supporting but threatened of the CWA's Aquatic Life Use goal in the 2002 305(b) report.

IMPAIRMENT SOURCE NPS

A fecal coliform TMDL for the Catoctin Creek watershed was submitted to the U.S. EPA on April 29, 2002 and approved May 31, 2002. The sources of fecal coliform bacteria requiring reductions are livestock and wildlife

waste delivered directly to the stream, and human contributions from straight pipes.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: North Fork Catoctin Creek
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A02R_NOC01A00
SEGMENT SIZE: 4.12 - Miles
INITIAL LISTING: 1994 **TMDL Schedule** - 2002

UPSTREAM LIMIT:

DESCRIPTION: Unnamed tributary to North Fork Catoctin Creek

RIVER MILE: 4.12

LATITUDE: 39.19306 **LONGTITUDE:** -77.67306

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Catoctin Creek

RIVER MILE: 0.00

LATITUDE: 39.20944 **LONGTITUDE:** -77.62167

Segment begins at the confluence of an unnamed tributary to North Fork Catoctin Creek, approximately 0.2 rivermiles downstream from Rt. 278 bridge, and continues downstream to its confluence with Catoctin Creek. The segment length was shortened from the 1998 303(d) listing to account for upstream special study monitoring stations on the North Fork Catoctin Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (7 of 22 samples - 31.8%) were recorded at DEQ's ambient water quality monitoring station 1aNOC000.42 at the Route 681 bridge to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE NPS

A fecal coliform TMDL for the Catoctin Creek watershed was submitted to the U.S. EPA on April 29, 2002 and approved May 31, 2002. The sources of fecal coliform bacteria requiring reductions are livestock and wildlife waste delivered directly to the stream, and human contributions from straight pipes.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: Limestone Branch
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A03R_LIM01A00
SEGMENT SIZE: 4.75 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2004
UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Limestone Branch
RIVER MILE: 4.75
LATITUDE: 39.17417 **LONGTITUDE:** -77.58167

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River
RIVER MILE: 0.00
LATITUDE: 39.16389 **LONGTITUDE:** -77.52028

Segment begins at the headwaters of Limestone Branch and continues downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (9 of 22 samples - 40.9%) were recorded at DEQ's ambient water quality monitoring station (1aLIM001.16) at the Route 15 bridge to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fauquier, Loudoun
STREAM NAME: Cromwells Run
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A05R_CRM01A00
SEGMENT SIZE: 3.61 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Unnamed tributary to Cromwells Run
RIVER MILE: 4.41
LATITUDE: 38.93861 **LONGTITUDE:** -77.80278

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Rocky Run
RIVER MILE: 0.80
LATITUDE: 38.97528 **LONGTITUDE:** -77.79111

Segment begins at the confluence of an unnamed tributary to Cromwells Run, approximately 0.78 rivermiles downstream from the Route 715 bridge, and continues downstream to the confluence of Rocky Run with Cromwells Run, approximately 0.40 rivermiles downstream from the Route 50 bridge.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (6 of 22 samples - 27.3%) were recorded at DEQ's ambient water quality monitoring station (1aCRM001.20) at the Route 50 bridge to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: North Fork Goose Creek
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A06R_NOG01A00
SEGMENT SIZE: 4.29 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary
RIVER MILE: 9.32
LATITUDE: 39.10417 **LONGTITUDE:** -77.72528

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Crooked Run
RIVER MILE: 5.03
LATITUDE: 39.07639 **LONGTITUDE:** -77.68694

Segment begins at the confluence of an unnamed tributary to North Fork Goose Creek, approximately 0.25 river miles upstream from the Route 725 bridge, and continues downstream to its confluence with Crooked Run, approximately 0.35 river miles upstream from Route 729 bridge.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (7 of 18 samples - 38.9%) were recorded at DEQ's ambient water quality monitoring station (1aNOG005.69) at the Route 722 bridge to assess this stream segment as not supporting of the Clean Water Act's (CWA's) Swimmable Use goal for the 2002 305(b) report.

Additionally, sufficient exceedances of the phosphorous screening value of 200 ug/L were recorded at station 1aNOG005.69 to assess the segment as fully supporting but threatened of the CWA's Aquatic Life Use goal for the 2002 305(b) report. Two of 18 samples (11.1%) exceeded the phosphorous screening value.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: Beaverdam Creek
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A07R_BEC01A00
SEGMENT SIZE: 6.32 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of North Fork
RIVER MILE: 6.32
LATITUDE: 39.04500 **LONGTITUDE:** -77.75139

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North Fork Goose Creek
RIVER MILE: 0.00
LATITUDE: 39.04889 **LONGTITUDE:** -77.67556

Segment begins at the confluence of North Fork to Beaverdam Creek, approximately 0.27 rivermile upstream of Route 746, and continues downstream to its confluence to North Fork Goose Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (7 of 21 samples - 33.3%) were recorded at DEQ's ambient water quality monitoring station at the Route 734 bridge (1aBEC004.76) to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: South Fork Sycolin Creek
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A08R_SFS01A02
SEGMENT SIZE: 3.31 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of South Fork Sycolin Creek
RIVER MILE: 3.31
LATITUDE: 39.07667 **LONGTITUDE:** -77.64750

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Sycolin Creek
RIVER MILE: 0.00
LATITUDE: 39.07028 **LONGTITUDE:** -77.60500

Segment begins at the headwaters of South Fork Sycolin Creek and continues downstream to its confluence with Sycolin Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (3 of 11 samples - 27.3%) were recorded at DEQ's ambient water quality monitoring station at the Route 15 bridge (1aSFS000.28) to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: Little River
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A08R_LIV01A00
SEGMENT SIZE: 6.13 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Hungry Run
RIVER MILE: 6.13
LATITUDE: 38.97194 **LONGTITUDE:** -77.65583

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Goose Creek
RIVER MILE: 0.00
LATITUDE: 39.02083 **LONGTITUDE:** -77.60222

Segment begins at the confluence of Hungry Run with Little River, approximately 1.5 river miles upstream from Route 50 bridge, and continues downstream to its confluence with Goose Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

Sufficient fecal coliform bacteria exceedances (7 of 24 samples - 29.2%) were recorded at DEQ's ambient water quality monitoring station at the Route 50 bridge (1aLIV004.78) to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

This segment was included in Part I of the 1998 303(d) report as partially supporting the aquatic life use due to a moderate benthic impairment noted at the DEQ biological monitoring station 1aLIV004.78 at Route 50. Based on biological survey results from the 2002 305(b) assessment period, this stream segment was determined to be slightly impaired. While the benthic community integrity showed an improvement from the 1998 303(d) list, this was not sufficient to warrant removing this segment from the impaired waters list. Therefore, the stream segment remains impaired for the benthic macroinvertebrate community.

IMPAIRMENT SOURCE Unknown, Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: Goose Creek
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A08R_GOO01A00
SEGMENT SIZE: 4.77 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Goose Creek impoundment
RIVER MILE: 4.91
LATITUDE: 39.05556 **LONGTITUDE:** -77.52639

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River
RIVER MILE: 0.00
LATITUDE: 39.10083 **LONGTITUDE:** -77.47778

Segment begins below the Goose Creek impoundment and continues downstream to its confluence with the Potomac River.

The 1998 303(d) report identified an 8.66-mile impaired segment of Goose Creek extending from the confluence with Beaverdam Creek (from Beaverdam Creek Reservoir) downstream to the confluence with the Potomac River. This segment size has been reduced in the 2002 303(d) report to account for the impoundment on Goose Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

Sufficient fecal coliform bacteria exceedances (6 of 51 samples - 11.8%) were recorded at DEQ's ambient water quality monitoring station at the Route 7 bridge (1aGOO002.38) to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

This segment was included in Part I of the 1998 303(d) report as partially supporting the aquatic life use due to a moderate benthic impairment noted at the DEQ biological monitoring station 1aGOO002.38 at Route 7. Based on biological survey results from the 2002 305(b) assessment period, this stream segment was determined to be slightly impaired. While the benthic community integrity showed an improvement from the 1998 303(d) list, this was not sufficient to warrant removing this segment from the impaired waters list. Therefore, the stream segment remains impaired for the benthic macroinvertebrate community.

IMPAIRMENT SOURCE Unknown, Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Loudoun
STREAM NAME: Sycolin Creek
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A08R_SYC02A02
SEGMENT SIZE: 7.1 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Sycolin Creek
RIVER MILE: 9.95
LATITUDE: 39.08861 **LONGTITUDE:** -77.65056

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary
RIVER MILE: 2.85
LATITUDE: 39.06056 **LONGTITUDE:** -77.55611

Segment begins at the headwaters of Sycolin Creek and continues downstream to its confluence with an unnamed tributary, approximately 0.23 rivermiles upstream from Route 643. The segment size was changed from the 1998 303(d) report to account for upstream special study monitoring stations on Sycolin Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform - 3.51 miles, Fecal Coliform - 3.59 miles

Sufficient fecal coliform bacteria exceedances were recorded at DEQ's water quality monitoring stations at the Route 621 bridge (1aSYC004.93; 4 of 10 samples - 40%), and the Route 797 bridge (1aSYC007.43; 2 of 12 samples - 16.7%) to assess 3.51 stream miles as not supporting and 3.59 stream miles as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report. The segment is considered not supporting from the confluence of South Fork Sycolin Creek with Sycolin Creek downstream to its confluence with an unnamed tributary, approximately 0.23 rivermiles upstream from the Route 643 bridge. The segment is considered partially supporting from the headwaters of Sycolin Creek downstream to the confluence with South Fork Sycolin Creek.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax, Loudoun
STREAM NAME: Sugarland Run
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A10R_SUG01A00
SEGMENT SIZE: 5.75 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Confluence of Folly Lick Branch
RIVER MILE: 5.75
LATITUDE: 38.99750 **LONGTITUDE:** -77.37167

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River
RIVER MILE: 0.00
LATITUDE: 39.06167 **LONGTITUDE:** -77.36806

Segment begins at the confluence of Folly Lick Branch to Sugarland Run and continues downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (3 of 18 samples - 16.7%) were recorded at DEQ's ambient water quality monitoring station at the Route 7 bridge (1aSUG004.42) to assess this stream segment as partially supporting of the Clean Water Act's (CWA) Swimmable Use goal for the 2002 305(b) report.

In addition, citizen monitoring at station 1aSUG-SLR3-SOS finds a medium probability of adverse conditions. As a result, this segment was assessed as fully supporting but threatened of the CWA's Aquatic Life Use goal in the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax
STREAM NAME: Difficult Run
HYDROLOGIC UNIT: 02070008
SEGMENT ID.: VAN-A11R_DIF01A00
SEGMENT SIZE: 2.93 - Miles
INITIAL LISTING: 1994 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Captain Hickory Run
RIVER MILE: 2.93
LATITUDE: 38.97222 **LONGTITUDE:** -77.27722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River
RIVER MILE: 0.00
LATITUDE: 38.97611 **LONGTITUDE:** -77.23528

Segment begins at the confluence of Captain Hickory Run with Difficult Run, approximately 0.6 river miles upstream from the Route 683 bridge, and continues downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring at station 1aDIF000.86 at the Route 193 bridge determined that the benthic community in the stream is moderately impaired. As a result, 2.93 stream miles were assessed as partially supporting the Clean Water Act's (CWA) Aquatic Life Use goal for the 2002 305(b) report.

Additionally, the manganese taste and odor water quality criteria was exceeded at the same monitoring station in one of one sample during the assessment period. As a result, the segment was assessed as fully supporting but threatened of the CWA's Drinking Water Use goal in the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Arlington, Alexandria, City of
STREAM NAME: Four Mile Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A12E_FOU01A00
SEGMENT SIZE: 0.25 - Sq. Mi.
INITIAL LISTING: 1996 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters
RIVER MILE: ~1.46
LATITUDE: 38.84389 **LONGTITUDE:** -77.06972

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River at State Line.
RIVER MILE: 0.00
LATITUDE: 38.84111 **LONGTITUDE:** -77.04667

Segment includes the tidal waters of Four Mile Run from rivermile 1.46 (approximately) downstream to the confluence with the Potomac River at the state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, Fish Tissue - PCBs

Sufficient fecal coliform bacteria exceedances (13 of 53 samples - 24.5%) were recorded at DEQ's ambient water quality monitoring station 1AFOU000.19 at the George Washington Parkway to assess this stream segment as partially supporting of the Clean Water Act's (CWA's) Swimmable Use goal for the 2002 305(b) report.

Exceedance of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue was recorded in three species of fish samples collected in 1997 at monitoring station 1AFOU000.45 (brown bullhead catfish, white perch, largemouth bass). As a result, the waters were assessed as partially supporting of the CWA's Fish Consumption Use goal for the 2002 305(b) report.

This stream segment is also assessed as fully supporting but threatened of the CWA's Aquatic Life Use goal for the following reasons:

1) The ER-M criteria for chlordane (6 ppb dry weight) was exceeded in a sediment sample collected in June 1999 at monitoring station 1AFOU000.19;

2) One exceedances of the acute ammonia water quality criteria standard was recorded at monitoring station 1AFOU000.19 (June 2000).

Note: Four Mile Run is designated as nutrient enriched waters (NEW-7) in 9 VAC 25-260-350 of the Virginia

Water Quality Standards. DEQ monitoring data for the 2002 water quality assessment period indicates that this segment is fully supporting of the Aquatic Life Use goal with respect to nutrients.

This segment was first listed for a swimming use impairment due to fecal coliform bacteria exceedances in the 1998 303(d) report. A fecal coliform TMDL is scheduled to be developed by 2010. The TMDL to address the fish consumption use impairment may extend to 2014.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax, Arlington
STREAM NAME: Pimmit Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A12R_PIM01A00
SEGMENT SIZE: 7.38 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Pimmit Run
RIVER MILE: 7.38
LATITUDE: 38.90222 **LONGTITUDE:** -77.20528

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River
RIVER MILE: 0.00
LATITUDE: 38.92861 **LONGTITUDE:** -77.11639

Segment begins at the headwaters of Pimmit Run and continues downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform - 5.75 miles, Fecal Coliform - 1.63 miles

Sufficient fecal coliform bacteria exceedances were recorded at DEQ's water quality monitoring stations at the Route 309 bridge (1aPIM004.16; 5 of 18 samples - 27.8%) and the Route 120 bridge (1aPIM000.15; 7 of 48 samples - 14.6%) to assess 5.75 miles as not supporting and 1.63 miles as partially supporting of the Clean Water Act's (CWA) Swimmable Use goal for the 2002 305(b) report. The segment is considered not supporting from the headwaters of Pimmit Run downstream to the confluence with Little Pimmit Run. It is considered partially supporting from the confluence of Little Pimmit Run downstream to the confluence with the Potomac River.

5.75 miles of this stream segment, from the headwaters to the confluence with Little Pimmit Run, are also assessed as fully supporting but threatened of the CWA's Aquatic Life Use goal in the 2002 305(b) report for the following reasons: (1) Sufficient exceedances of the phosphorous screening value (200 ug/L) recorded at station 1aPIM004.16 (2 of 18 samples - 11.1%) ; (2) Citizen monitoring stations 1aPIM-PIM2-SOS and 1aPIM-PIM3-SOS both find medium probability of adverse conditions.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Arlington, Alexandria, City of
STREAM NAME: Four Mile Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A12R_FOU01A00
SEGMENT SIZE: 7.88 - Miles
INITIAL LISTING: 1994 **TMDL Schedule** - 2002

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Four Mile Run
RIVER MILE: 9.34
LATITUDE: 38.89889 **LONGTITUDE:** -77.17222

DOWNSTREAM LIMIT:

DESCRIPTION: Upstream of Arlington Ridge Road Br
RIVER MILE: 1.46
LATITUDE: 38.84389 **LONGTITUDE:** -77.06972

Segment begins at the headwaters of Four Mile Run and continues downstream to the end of the free-flowing waters at rivermile 1.46 (approximately), roughly 0.27 river miles upstream of Arlington Ridge Road bridge.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (5 of 22 samples - 22.7%) were recorded at DEQ's ambient water quality monitoring station 1aFOU004.22 at the Route 244 bridge to assess this stream segment as partially supporting of the Clean Water Act's (CWA) Swimmable Use goal for the 2002 305(b) report.

Four Mile Run is designated as nutrient enriched waters (NEW-7) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. DEQ monitoring data for the 2002 water quality assessment period indicates that this segment is fully supporting of the Aquatic Life Use goal with respect to nutrients.

IMPAIRMENT SOURCE NPS

A fecal coliform TMDL was developed for the free-flowing waters of Four Mile Run, and was submitted to the U.S. EPA on April 29, 2002 and approved May 31, 2002. The sources of fecal coliform bacteria requiring reductions are human sources including leaking sewer lines and illicit sewer connections, dog waste, and wildlife waste.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax, Alexandria, City of
STREAM NAME: Hunting Creek/Cameron Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A13E_HUT01A00
SEGMENT SIZE: 0.71 - Sq. Mi.
INITIAL LISTING: 1994 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Approximately 0.22 rivermiles above Route 241 (Telegraph Rd.)

RIVER MILE: 2.58

LATITUDE: 38.80111 **LONGTITUDE:** -77.08472

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 38.78444 **LONGTITUDE:** -77.04444

Segment begins approximately 0.22 rivermiles above the Route 241 bridge (Telegraph Rd.) and continues downstream to the confluence with the Potomac River, to include the embayment.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Partially Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Ammonia, Fecal Coliform, Fish Tissue - PCBs

DEQ maintains an ambient water quality monitoring and a fish tissue/sediment monitoring station (1aHUT000.01) at the George Washington Parkway. The sampling data from this station revealed the following during the 2002 305(b) report assessment period:

1) Not supporting of the Clean Water Act's (CWA) Aquatic Life Use goal due to three exceedances of the acute ammonia criteria within a three-year period;

2) Partially supporting of the CWA's Swimmable Use goal due to sufficient fecal coliform bacteria exceedances (9 of 54 samples - 16.7%);

3) Partially supporting of CWA's Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

Within this segment, fish tissue data revealed exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in two species in 1996 (carp and white perch) and four species in 2000 (white perch, carp, channel catfish, American eel).

Additionally, this segment is considered fully supporting but threatened of the CWA's Aquatic Life Use goal due to exceedances of the ER-M criteria for chlordane (6 ppb dry weight) in sediment samples collected in 1996, 1999, and 2000.

Note: Hunting Creek is designated as nutrient enriched waters (NEW-8) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. DEQ monitoring data for the 2002 water quality assessment period indicates this segment is fully supporting of the Aquatic Life Use goal with respect to nutrients.

This segment was listed for a swimming use impairment due to fecal coliform bacteria exceedances in the 1998 303(d) report. A fecal coliform TMDL is scheduled to be developed by 2010. TMDL's to address the aquatic life use and fish consumption use impairments may extend to 2014.

IMPAIRMENT SOURCE Unknown, VDH Fish Consumption Advisory

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Fairfax, Prince William, Stafford

STREAM NAME: VA Tidal Waters from Woodrow Wilson Bridge to

HYDROLOGIC UNIT: 02070010

SEGMENT ID.: VAN-A13E_POT20A02

SEGMENT SIZE: 20.3 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Woodrow Wilson Bridge

RIVER MILE: ~107.7

LATITUDE: 38.79306 **LONGTITUDE:** -77.03972

DOWNSTREAM LIMIT:

DESCRIPTION: Brent Point at Mouth of Aquia Creek

RIVER MILE: ~72.2

LATITUDE: 38.39694 **LONGTITUDE:** -77.31167

The segment includes the Potomac River and Virginia tidal waters from the Woodrow Wilson Bridge downstream (~33 miles) to Brent Point at the mouth of Aquia Creek. Segment includes the tidal waters contained in waterbodies VAN-A13E, VAN-A14E, VAN-A15E, VAN-A25E, and VAN-A26E.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

The Virginia Department of Health (VDH) has issued a 'Health Advisory' for fishing in this segment of the Potomac River and tidal tributaries based on fish tissue analysis. As a result, this segment was assessed as partially supporting of the Clean Water Act's Fish Consumption Use goal for the 2002 305(b) report. The segment partially supports the fish consumption use for Channel Catfish larger than 18 inches. Fish tissue analysis reveals PCB levels high enough for issuance of an advisory. The VDH advises limiting the amount of fish consumed from the segment to one, 8 oz. portion per month. Information on the fish tissue sampling program can be viewed at <http://www.deq.state.va.us/water/>.

IMPAIRMENT SOURCE VDH Fish Consumption Advisory

The source of impairment is unknown. PCBs are a group of man-made chemicals that can contain up to 209 individual compounds. Data indicate that long-term consumption of fish contaminated with PCBs could pose a human health risk. Information on VDH fish consumption advisories, prohibitions, or bans can be viewed at <http://www.vdh.state.va.us>.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax, Alexandria, City of
STREAM NAME: Backlick Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A13R_BAL01A00
SEGMENT SIZE: 6.45 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Backlick Run
RIVER MILE: 6.45
LATITUDE: 38.82028 **LONGTITUDE:** -77.20278

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Holmes Run
RIVER MILE: 0.00
LATITUDE: 38.80750 **LONGTITUDE:** -77.11194

Segment begins at the headwaters of Backlick Run, approximately 0.74 rivermiles upstream of Route 620, downstream to its confluence with Holmes Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (4 of 22 samples - 18.2%) were recorded at DEQ's ambient water quality monitoring station 1aBAL001.40 at Van Dorn Street to assess this stream segment as partially supporting of the Clean Water Act's (CWA) Swimmable Use goal for the 2002 305(b) report.

The ER-M criteria for Silver (3.7 ppm, dry weight) was exceeded in a sediment sample collected in July, 1997, at the same monitoring station. As a result, this stream segment was assessed as fully supporting but threatened of the CWA's Aquatic Life Use goal in the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax
STREAM NAME: Little Hunting Creek
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A14E_LIF01A00
SEGMENT SIZE: 0.24 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters
RIVER MILE: ~1.7
LATITUDE: 38.73111 **LONGITUDE:** -77.08139

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River
RIVER MILE: 0.00
LATITUDE: 38.71028 **LONGITUDE:** -77.07639

Segment includes all tidal waters of Little Hunting Creek, extending from approximately rivermile 1.7 downstream to the confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

DEQ maintains an ambient monitoring station (1aLIF000.19) at the George Washington Parkway and a Fish tissue/Sediment Station (1aLIF000.01). The sampling data from these stations revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Acts (CWA's) Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

Within this segment, fish tissue data revealed exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in one species in 1996 (shad) and five species in 2000 (largemouth bass, white perch, carp, channel catfish, American eel).

2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to the following reasons:
(a) The ER-M criteria for chlordane (6 ppb dry weight) was exceeded in sediment samples collected in 1996 and 2000;
(b) Seven of 15 samples (47%) exceeded the chlorophyll a screening value of 50 ug/L;

Little Hunting Creek is designated nutrient enriched waters (NEW-9) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This segment is nested within the larger area affected by the NEW designation.

IMPAIRMENT SOURCE VDH Fish Consumption Advisory

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax
STREAM NAME: Pohick Bay
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A15E_POH02A00
SEGMENT SIZE: 1.24 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters in Pohick Creek

RIVER MILE: ~3.69

LATITUDE: 38.68833 **LONGTITUDE:** -77.19333

DOWNSTREAM LIMIT:

DESCRIPTION: Rivermile 1.31

RIVER MILE: 1.31

LATITUDE: 38.67472 **LONGTITUDE:** -77.15556

Segment includes the tidal waters of Pohick Creek and extends to rivermile 1.31 in Gunston Cove.
Segment includes all of Pohick Bay.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Ammonia, Fish Tissue - PCBs

DEQ maintains an ambient water quality monitoring station (1aPOH002.32) and a fish tissue/sediment monitoring station (1aPOH000.32) in Pohick Bay. The sampling data from these stations revealed the following during the 2002 305(b) report assessment period:

- 1) Not supporting of the Clean Water Act's (CWA) Aquatic Life Use goal due to greater than three exceedances of the acute ammonia criteria within a three-year period.;
 - 2) Partially supporting of CWA's Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.
- Within this segment, fish tissue data revealed exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in three species in 2000 (largemouth bass, carp, channel catfish).
- 3) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to the following:
 - (a) The ER-M criteria for chlordane (6 ppb dry weight) was exceeded in sediment samples collected in 2000;
 - (b) 12 of 21 samples (57%) exceeded the chlorophyll a screening level of 50 ug/L.

IMPAIRMENT SOURCE Unknown, VDH Fish Consumption Advisory

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax, Fairfax City of
STREAM NAME: Accotink Creek
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A15R_ACO04A02
SEGMENT SIZE: 1.19 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Daniels Run
RIVER MILE: 21.18
LATITUDE: 38.85972 **LONGTITUDE:** -77.27583

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Bear Branch
RIVER MILE: 19.99
LATITUDE: 38.85917 **LONGTITUDE:** -77.25611

Segment starts at confluence of Daniels Run to Accotink Creek in the City of Fairfax and extends downstream to the confluence of Bear Branch to Accotink Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Fecal coliform bacteria exceedances were recorded in 13 of 15 samples (86.7%) collected at USGS station 01653900 at Picket Road. As a result, this segment was assessed as not supporting of the Clean Water Act's (CWA) Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE NPS

A fecal coliform TMDL for Accotink Creek above Lake Accotink was developed and submitted to the U.S. EPA on April 26, 2002 and approved May 31, 2002.. The sources of fecal coliform bacteria requiring reductions are dog and goose waste deposited on pervious and impervious surfaces, cat and duck waste deposited on pervious surfaces, and human sources including failing septic systems, leaking sewer lines and illicit sewer connections.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax
STREAM NAME: Accotink Creek
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A15R_ACO01A00
SEGMENT SIZE: 8.62 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Calamo Branch
RIVER MILE: 9.83
LATITUDE: 38.77167 **LONGTITUDE:** -77.20333

DOWNSTREAM LIMIT:

DESCRIPTION: To end of free-flowing waters
RIVER MILE: ~1.57
LATITUDE: 38.69778 **LONGTITUDE:** -77.16139

Segment begins at the confluence of Calamo Branch and Accotink Creek and extends downstream to the tidal waters of Accotink Bay. The segment size has been reduced from the 1998 303(d) listing to include only the free-flowing waters of Accotink Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring at station 1aACO006.10 at the Route 790 bridge determined that the benthic community in the stream is moderately impaired. As a result, the segment was assessed as partially supporting the Clean Water Act's Aquatic Life Use goal for the 2002 305(b) report. Citizen monitoring station 1aACO-AC2B-SOS, located within the delineated stream segment, finds a high probability of adverse conditions for biota.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax
STREAM NAME: Accotink Creek
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A15R_ACO02A00
SEGMENT SIZE: 4.8 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2002

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Crook Branch
RIVER MILE: 18.55
LATITUDE: 38.84639 **LONGTITUDE:** -77.23889

DOWNSTREAM LIMIT:

DESCRIPTION: Start of Lake Accotink
RIVER MILE: 13.75
LATITUDE: 38.80278 **LONGTITUDE:** -77.23111

Segment begins at the confluence of Crook Branch and Accotink Creek, upstream of the Route 846 bridge, and continues downstream to the start of Lake Accotink.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Fecal coliform bacteria exceedances were recorded in 42 of 92 samples (45.7%) collected at USGS station 01654000 at Route 620 (Braddock Road). As a result, this segment was assessed as not supporting of the Clean Water Act's (CWA) Swimmable Use goal for the 2002 305(b) report.

DEQ maintains an ambient water quality monitoring station (1aACO014.57) at the Route 620 bridge. Two of 19 (10.5%) fecal coliform exceedances were recorded at this station during the 2002 305(b) assessment period.

In addition, citizen monitoring at stations 1aACO-AC6-SOS and 1aACO-AC2-SOS both find a high probability of adverse conditions. As a result, this segment was assessed as fully supporting but threatened of the CWA's Aquatic Life Use goal in the 2002 305(b) report.

IMPAIRMENT SOURCE NPS

A fecal coliform TMDL for Accotink Creek above Lake Accotink was developed and submitted to the U.S. EPA on April 26, 2002 and approved May 31, 2002. The sources of fecal coliform bacteria requiring reductions are dog and goose waste deposited on pervious and impervious surfaces, cat and duck waste deposited on pervious surfaces, and human sources including failing septic systems, leaking sewer lines and illicit sewer connections.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax
STREAM NAME: Pohick Creek
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A16R_POH01A00
SEGMENT SIZE: 3.2 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of South Run
RIVER MILE: 6.89
LATITUDE: 38.71750 **LONGTITUDE:** -77.21722

DOWNSTREAM LIMIT:

DESCRIPTION: End of the free-flowing portion of Pohick Creek
RIVER MILE: ~3.69
LATITUDE: 38.68833 **LONGTITUDE:** -77.19333

Segment begins at the confluence of South Run to Pohick Creek, approximately 0.25 rivermiles upstream of I-95, downstream to the end of the free-flowing portion of Pohick Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, Fish Tissue - PCBs, PAH

DEQ maintains an ambient water quality monitoring station (1aPOH007.65) at Route 642, and a Fish Tissue/Sediment monitoring station identified as 1aPOH004.79. The sampling data from these stations revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA) Swimming Use goal due to sufficient fecal coliform exceedances recorded at station 1aPOH007.65 (3 of 19 samples - 15.8%);

2) Partially supporting of the CWA's Fish Consumption Use goal due to exceedances of the human health-risk based screening values (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) and 15 ppb for benzo(k)fluoranthene in fish tissue. Exceedance of the SV for PCB's was recorded in two species (bullhead catfish, white perch) in 1996. Exceedance of the SV for benzo(k)fluoranthene was exceeded in three species (bullhead catfish, white perch, and sunfish). Additionally, chrysene exceeded the SV of 15 ppb in bullhead catfish, and benzo(b)fluoranthene exceeded the SV of 15 ppb for in white perch in the 1996 fish tissue sampling.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fauquier, Prince William
STREAM NAME: Cedar Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A17R_CER01A02
SEGMENT SIZE: 28.23 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Mill Run to Cedar Run
RIVER MILE: 28.23
LATITUDE: 38.71056 **LONGTITUDE:** -77.73500

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Occoquan River
RIVER MILE: 0.00
LATITUDE: 38.68778 **LONGTITUDE:** -77.48972

Segment begins at the confluence of Mill Run to Cedar Run and continues downstream to the confluence with the Occoquan River. Segment extends from watershed A17R through A18R in Fauquier and Prince William Counties.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform - 5.94 miles, Fecal Coliform - 22.29 miles

The listing of this stream segment is based on data from the following DEQ monitoring stations: 1aCER0025.25 at Route 602; 1aCER016.46 at Route 806, 1aCER009.52 at Route 611, and 1aCER006.00 at Route 646. The monitoring data from these stations revealed the following during the 2002 305(b) report assessment period:

1) Not supporting of the Clean Water Act's (CWA) Swimming Use goal due to sufficient fecal coliform bacteria exceedances recorded at station 1aCER009.52 (3 of 11 samples - 27.3%) . A total of 5.94 rivermiles of the segment are considered not supporting, beginning at the confluence of Walnut Branch to Cedar Run and continuing downstream to the confluence of Goslin Run to Cedar Run.

2) Partially supporting of the CWA's Swimming Use goal due to sufficient fecal coliform bacteria exceedances recorded at stations 1aCER0025.25 (5 of 23 samples - 21.7%), 1aCER016.46 (4 of 24 samples - 16.7%), and 1aCER006.00 (10 of 49 samples - 20.4%). A total of 22.29 rivermiles of the segment are considered partially supporting, beginning at the confluence of Mill Run to Cedar Run and continuing downstream to the confluence with the Occoquan River. The 5.94-mile segment described in (1) above is excluded from the partially supporting determination.

3) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to sufficient exceedances of the phosphorous screening value (SV) of 200 ug/L recorded at stations 1aCER016.46 (3 of 24 samples - 12.%) and 1aCER009.52 (2 of 11 samples - 18.2%). A total of 11.59 rivermiles of this segment are considered fully

supporting but threatened due to phosphorous SV exceedances, beginning at the confluence of Turkey Run to Cedar Run and continuing downstream to the confluence of Goslin Run to Cedar Run.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fauquier
STREAM NAME: Licking Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A17R_LIL01A00
SEGMENT SIZE: 6.58 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2004

UPSTREAM LIMIT:

DESCRIPTION: Below mouth of Germantown Lake
RIVER MILE: 6.58
LATITUDE: 38.61667 **LONGTITUDE:** -77.72139

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Cedar Run
RIVER MILE: 0.00
LATITUDE: 38.63222 **LONGTITUDE:** -77.64111

Segment begins at Route 602, below the mouth of Germantown Lake, downstream to its confluence with Cedar Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (5 of 24 samples - 20.8%) were recorded at DEQ's ambient water quality monitoring station (1aLIL001.43) at the Route 616 bridge to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Prince William, Manassas, City of
STREAM NAME: Broad Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A19R_BRU01A00
SEGMENT SIZE: 7.26 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Rocky Branch
RIVER MILE: 11.91
LATITUDE: 38.75056 **LONGTITUDE:** -77.57833

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Cannon Branch
RIVER MILE: 4.65
LATITUDE: 38.72000 **LONGTITUDE:** -77.50639

Segment begins at the confluence of Rocky Branch to Broad Run and continues downstream to the confluence of Cannon Branch to Broad Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (4 of 24 samples - 16.7%) were recorded at DEQ's ambient water quality monitoring station (1aBRU007.58) at the Route 28 bridge to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Prince William
STREAM NAME: Broad Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A19R_BRU05A02
SEGMENT SIZE: 1.51 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary to Broad Run

RIVER MILE: 21.43

LATITUDE: 38.78222 **LONGTITUDE:** -77.68306

DOWNSTREAM LIMIT:

DESCRIPTION: Start of Lake Manassas

RIVER MILE: 19.92

LATITUDE: 38.77778 **LONGTITUDE:** -77.66944

Segment begins at the confluence of an unnamed tributary to Broad Run, at rivermile 21.43, and continues downstream to the start of Lake Manassas.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (4 of 21 samples - 19%) were recorded at DEQ's ambient water quality monitoring station (1aBRU020.12) at the Route 29/211 bridge to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Prince William
STREAM NAME: Kettle Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A19R_KET01A00
SEGMENT SIZE: 7.59 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary to Kettle Run

RIVER MILE: 7.59

LATITUDE: 38.72389 **LONGTITUDE:** -77.61028

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Broad Run

RIVER MILE: 0.00

LATITUDE: 38.69611 **LONGTITUDE:** -77.51056

Segment begins at the confluence of an unnamed tributary to Kettle Run, approximately 0.08 rivermile upstream of Route 708, downstream to its confluence with Broad Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (6 of 20 samples - 30%) were recorded at DEQ's ambient water quality monitoring station (1aKET000.80) at the Route 619 bridge to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fauquier, Prince William
STREAM NAME: South Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A19R_SOT01A00
SEGMENT SIZE: 2.34 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Downstream of Lake Brittle
RIVER MILE: 2.34
LATITUDE: 38.74861 **LONGTITUDE:** -77.69028

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Lake Manassas (Broad Run)
RIVER MILE: 0.00
LATITUDE: 38.77167 **LONGTITUDE:** -77.66389

Segment begins on South Run downstream of Lake Brittle, and continues downstream to its confluence to Lake Manassas (Broad Run).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

This segment was included in Part I of the 1998 303(d) report as partially supporting the aquatic life use due to a moderate benthic impairment noted at the DEQ biological monitoring station 1aSOT001.44 at Route 215. Based on biological survey results from the 2002 305(b) assessment period, this stream segment was determined to be slightly impaired. While the benthic community integrity showed an improvement from the 1998 303(d) list, this was not sufficient to warrant removing this segment from the impaired waters list. Therefore, the stream segment remains impaired for the benthic macroinvertebrate community.

The ER-M criteria for Silver (3.7 ppm, dry weight) was exceeded in a sediment sample collected in April, 1999, at the DEQ ambient water quality monitoring station (1aSOT001.44) at Route 215. As a result, this stream segment was assessed as fully supporting but threatened of the Clean Water Act's Aquatic Life Use goal in the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Prince William, Fairfax
STREAM NAME: Bull Run
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A23R_BUL02A02
SEGMENT SIZE: 4.8 - Miles
INITIAL LISTING: 1994 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Cub Run to Bull Run
RIVER MILE: 11.51
LATITUDE: 38.79639 **LONGTITUDE:** -77.46611

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Popes Head Creek
RIVER MILE: 6.71
LATITUDE: 38.77278 **LONGTITUDE:** -77.41417

Segment begins at the confluence of Cub Run to Bull Run, at the start of watershed A23R, downstream to its confluence with Popes Head Creek.

This segment was included within a larger segment for the 1998 and 2000 assessments, and was listed in the 1998 303(d) report as partially supporting the aquatic life use based on a benthic impairment. The former segment began at confluence of Holkums Branch in waterbody A21R and extended to the Occoquan River (15.64 miles). The segment was shortened based on hydrology, considering significant tributaries upstream and downstream from the monitoring station at Route 28.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring at station 1aBUL010.28 located at Route 28 determined that the benthic community in the stream is moderately impaired. As a result, 4.8 stream miles were assessed as partially supporting the Clean Water Act's Aquatic Life Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax
STREAM NAME: Popes Head Creek
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A23R_POE01A00
SEGMENT SIZE: 4.92 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Piney Branch to Popes Head Creek

RIVER MILE: 4.92

LATITUDE: 38.79667 **LONGTITUDE:** -77.35556

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Bull Run

RIVER MILE: 0.00

LATITUDE: 38.77306 **LONGTITUDE:** -77.41444

Segment begins at the confluence of Piney Branch to Popes Head Creek, approximately 0.25 rivermiles downstream of Route 660, downstream to its confluence to Bull Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring at station 1aPOE002.00 located at Route 645 determined that the benthic community in the stream is moderately impaired. As a result, 4.92 stream miles were assessed as partially supporting the Clean Water Act's Aquatic Life Use goal for the 2002 305(b) report. In addition, citizen monitoring station 1aPOE-14-ANS, located in the Chapel Road Park, finds medium probability of adverse conditions for biota.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax, Prince William
STREAM NAME: Occoquan Bay
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A25E_OCC01A00
SEGMENT SIZE: 0.69 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION:

RIVER MILE: 2.97
LATITUDE: 38.64750 **LONGTITUDE:** -77.22000

DOWNSTREAM LIMIT:

DESCRIPTION:

RIVER MILE: 1.97
LATITUDE: 38.63306 **LONGTITUDE:** -77.22250

Segment is defined by a half-mile radius around DEQ monitoring station 1aOCC002.47 located in the center of the bay, northeast from Sandy Point.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: pH, Fish Tissue - PCBs

The DEQ maintains an ambient water quality and fish tissue/sediment monitoring station (1aOCC002.47) at the centerline of Occoquan/Belmont Bay, northeast of Sandy Point. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

- 1) Partially supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal due to sufficient exceedances of the pH water quality criteria. Nine of 38 samples (23.7%) exceeded the upper range (9.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards;
- 2) Partially supporting of CWA's Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

Within this segment, fish tissue data revealed exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in two species in 1996 (white perch and sunfish); and,

- 3) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to exceedances of the chlorophyll a screening level of 50 ug/L. Ten (10) of 20 samples (50%) exceeded the chlorophyll a screening level.

Note: Occoquan Bay is designated as nutrient enriched waters (NEW-11) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This segment is nested within the larger area affected by the NEW designation.

IMPAIRMENT SOURCE Unknown, VDH Fish Consumption Advisory

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Prince William
STREAM NAME: Neabsco Bay
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A25E_NEA01A00
SEGMENT SIZE: 0.37 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Half rivermile upstream of monitoring station
RIVER MILE: 1.07
LATITUDE: 38.60833 **LONGTITUDE:** -77.26667

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River
RIVER MILE: 0.00
LATITUDE: 38.59833 **LONGTITUDE:** -77.23722

Segment extends from a half rivermile upstream of monitoring station 1aNEA000.57 to the confluence with the Occoquan Bay.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: pH, Fish Tissue - PCBs

The DEQ maintains an ambient water quality and fish tissue/sediment monitoring station identified as 1aNEA000.57, and a fish tissue/sediment monitoring station identified as 1aNEA000.51. The monitoring data from these stations revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal due to sufficient exceedances of the pH water quality criteria. Nine of 42 samples (21.4%) exceeded the upper range (9.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards;

2) Partially supporting of CWA's Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

Within this segment, fish tissue data revealed exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in two species in 1996 (largemouth bass, carp) and five species in 2000 (largemouth bass, carp, channel catfish, white catfish, American eel).

3) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to exceedances of the chlorophyll a screening level of 50 ug/L. Seventeen (17) of 21 samples (81%) exceeded the chlorophyll a screening level.

Another factor that threatens the aquatic life use goal is the designation of Neabsco Creek as nutrient enriched waters (NEW). Neabsco Creek is designated NEW-13 in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This segment is nested within the larger area affected by the NEW designation.

IMPAIRMENT SOURCE Unknown, VDH Fish Consumption Advisory

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Prince William
STREAM NAME: Neabsco Creek
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A25R_NEA01A00
SEGMENT SIZE: 8.8 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary
RIVER MILE: 11.30
LATITUDE: 38.65444 **LONGTITUDE:** -77.37111

DOWNSTREAM LIMIT:

DESCRIPTION: Start of the tidal waters of Neabsco Creek
RIVER MILE: ~2.5
LATITUDE: 38.61000 **LONGTITUDE:** -77.28417

Segment begins at the confluence of an unnamed tributary to Neabsco Creek near Dale City (approximately 0.4 rivermiles downstream from Rt. 784) downstream to the start of the tidal waters of Neabsco Creek/Bay.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (5 of 23 samples - 21.7%) were recorded at DEQ's ambient water quality monitoring station (1aNEA002.89) at the Route 1 bridge to assess this stream segment as partially supporting of the Clean Water Act's (CWA's) Swimmable Use goal for the 2002 305(b) report.

Citizen monitoring stations 1aNEA-SOS and 1aNEA-N1-SOS find medium and high probability, respectively, of adverse conditions. As a result, this stream segment was assessed as fully supporting but threatened of the CWA's Aquatic Life Use goal.

Note: Neabsco Creek is designated as nutrient enriched waters (NEW-13) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. DEQ water quality monitoring data for the 2002 water quality assessment period indicates that this segment is fully supporting of the Aquatic Life Use goal with respect to nutrients.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Fairfax
STREAM NAME: Mills Branch
HYDROLOGIC UNIT: 02070010
SEGMENT ID.: VAN-A25R_WLB01A02
SEGMENT SIZE: 1.81 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Mills Branch
RIVER MILE: 1.81
LATITUDE: 38.70139 **LONGTITUDE:** -77.24944

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Occoquan River
RIVER MILE: 0.00
LATITUDE: 38.67972 **LONGTITUDE:** -77.25306

Segment includes all of Mills Branch from the headwaters downstream to the confluence with the Occoquan River. Mills Branch is an unnamed tributary on the Occoquan/Ft. Belvoir quads. It is channeled, flowing under the Fairfax County I-95 Landfill in Lorton, VA.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The DEQ maintains an ambient water quality monitoring station (1aWLB000.06) in the Occoquan Regional Park. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

- 1) Partially supporting of the Clean Water Act's Swimming Use goal due to sufficient fecal coliform bacteria exceedances (5 of 20 samples - 25%);
- 2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due to the following:
 - (a) sufficient exceedances of the phosphorous screening value of 200 ug/L (7 of 20 samples - 35%);
 - (b) The ER-M criteria for DDT (7 ppb dry weight) was exceeded in sediment collected in June, 1997.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Prince William, Stafford
STREAM NAME: Chopawamsic Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAN-A26E_CHO01A00
SEGMENT SIZE: 0.1 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters
RIVER MILE: ~4.15
LATITUDE: 38.51917 **LONGTITUDE:** -77.36778

DOWNSTREAM LIMIT:

DESCRIPTION: Half rivermile downstream from monitoring station
RIVER MILE: 3.15
LATITUDE: 38.51611 **LONGTITUDE:** -77.35556

Segment extends from approximately a half rivermile upstream (to the end of the tidal waters) to a half rivermile downstream of monitoring station 1aCHO003.65.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: pH

Sufficient violations of the pH water quality criteria were recorded at DEQ's ambient water quality monitoring station (1aCHO003.65) at Route 1 to assess this segment as partially supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report. Six of 42 samples (14.3%) were below the lower range (6.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

Note: This segment was also assessed as partially supporting of the Clean Water Act's (CWA's) Fish Consumption Use goal in the 2002 305(b) report based on a Health Advisory issued by the Virginia Department of Health (VDH). This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown, but may be due to natural conditions.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Prince William
STREAM NAME: Quantico Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAN-A26R_QUA01A00
SEGMENT SIZE: 1.8 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of South Fork to Quantico Creek

RIVER MILE: 5.61

LATITUDE: 38.57194 **LONGTITUDE:** -77.34750

DOWNSTREAM LIMIT:

DESCRIPTION: End of the free flowing waters

RIVER MILE: ~3.81

LATITUDE: 38.56500 **LONGTITUDE:** -77.32000

Segment begins at the confluence of South Fork to Quantico Creek, approximately 0.75 rivermiles upstream of I-95, and continues downstream to end of the free-flowing waters of Quantico Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

Sufficient exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue was recorded at DEQ's ambient water quality and fish tissue/sediment monitoring station (1aQUA004.46) at Route 1 Business to assess this segment as partially supporting of Clean Water Act's Fish Consumption Use goal. The SV for PCB's was exceeded in two fish species in 1996 (Largemouth Bass and Bullhead Catfish).

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Prince William
STREAM NAME: Powells Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAN-A26R_POW01A00
SEGMENT SIZE: 5.02 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Approximately 0.2 rivermiles below Lake Montclair
RIVER MILE: 7.20
LATITUDE: 38.61056 **LONGTITUDE:** -77.33972

DOWNSTREAM LIMIT:

DESCRIPTION: End of the free flowing waters
RIVER MILE: ~2.18
LATITUDE: 38.58972 **LONGTITUDE:** -77.28389

Segment begins approximately 0.2 rivermiles below Lake Montclair and continues downstream to the end of the free flowing waters of Powells Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, Fish Tissue - PCBs, PAH

The DEQ maintains an ambient water quality and fish tissue/sediment monitoring station (1aPOW003.11) at Route 1. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

- 1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances (2 of 19 samples - 10.5%);
- 2) Partially supporting of CWA's Fish Consumption Use goal due to exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) and 15 ppb for benzo(k)fluoranthene in fish tissue. Exceedance of the SV for PCB's was recorded in three fish species in 1996 (largemouth bass, bullhead catfish and sunfish). Exceedance of the SV for benzo(k)fluoranthene was exceeded in two species (largemouth bass and sunfish).

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Prince William, Stafford
STREAM NAME: Chopawamsic Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAN-A26R_CHO01A02
SEGMENT SIZE: 0.76 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary
RIVER MILE: 4.91
LATITUDE: 38.53611 **LONGTITUDE:** -77.39139

DOWNSTREAM LIMIT:

DESCRIPTION: Start of tidal waters of Chopawamsic Creek
RIVER MILE: ~4.15
LATITUDE: 38.51917 **LONGTITUDE:** -77.36778

Segment begins at the confluence of an unnamed tributary to Chopawamsic Creek, approximately 0.3 rivermiles upstream from I-95, and continues to the end of the free flowing waters of Chopawamsic Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: pH

Sufficient violations of the pH water quality criteria were recorded at the USGS monitoring station (01660110) at Interstate 95 to assess this segment as partially supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report. Thirteen of 63 samples (20.6%) were below the lower range of the pH water quality criteria (6.0 - 9.0 SU) for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown, but may be due to natural conditions.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Stafford, King George
STREAM NAME: Potomac Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAN-A29E_POM01A02
SEGMENT SIZE: 0.62 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Half rivermile upstream of monitoring station
RIVER MILE: 1.54
LATITUDE: 38.34583 **LONGTITUDE:** -77.31167

DOWNSTREAM LIMIT:

DESCRIPTION: Half rivermile downstream from monitoring station
RIVER MILE: 0.54
LATITUDE: 38.34694 **LONGTITUDE:** -77.29722

Segment extends to a half-mile radius around monitoring station 1aPOM001.04.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

Sufficient exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue was recorded at DEQ's fish tissue/sediment monitoring station 1aPOM001.04 to assess this segment as partially supporting of Clean Water Act's (CWA's) Fish Consumption Use goal. The SV for PCB's was exceeded in four species in samples collected May 22, 2000 (largemouth bass, carp, channel catfish and American eel). In addition, the SV for arsenic (72 ppb) was exceeded in one species (American eel), and lead was detected in one species (channel catfish) in fish tissue samples collected May, 2000.

These waters are also designated as nutrient enriched waters (NEW-12) in 9 VAC 25-260-350 of the Virginia Water Quality Standards resulting in an assessment of fully supporting but threatened of the CWA's Aquatic Life Use goal in the 2002 305(b) report. This segment is nested within the larger area affected by the NEW designation.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Stafford, King George
STREAM NAME: Potomac Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAN-A29E_POM02A02
SEGMENT SIZE: 0.59 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Half rivermile upstream of monitoring station
RIVER MILE: 2.91
LATITUDE: 38.35194 **LONGTITUDE:** -77.33361

DOWNSTREAM LIMIT:

DESCRIPTION: Half rivermile downstream from monitoring station
RIVER MILE: 1.91
LATITUDE: 38.34611 **LONGTITUDE:** -77.32028

Segment extends to a half-mile radius around monitoring station 1aPOM002.41 located off Old Landing Point.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: pH

Sufficient violations of the pH water quality criteria were recorded at DEQ's ambient monitoring station (1aPOM002.41) off Old Landing Point to assess this segment as partially supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report. Five of 37 samples (13.5%) exceeded the upper range (9.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

Note: These waters are designated as nutrient enriched waters (NEW-12) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. DEQ monitoring data for the 2002 water quality assessment period indicates that this segment is fully supporting of the Aquatic Life Use goal with respect to nutrients.

IMPAIRMENT SOURCE Unknown

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Stafford
STREAM NAME: Curtis Lake
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAN-A29L_LOH02A02
SEGMENT SIZE: 91 - Acres
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Start of Curtis Lake
RIVER MILE: 8.55
LATITUDE: 38.43861 **LONGTITUDE:** -77.57000

DOWNSTREAM LIMIT:

DESCRIPTION: End of Curtis Lake
RIVER MILE: 7.80
LATITUDE: 38.43361 **LONGTITUDE:** -77.55917

Segment includes all of Curtis Lake on Long Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: pH

Sufficient violations of the pH water quality criteria were recorded at DEQ's ambient monitoring station (1aLOM007.93) on Curtis Lake to assess this segment as partially supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report. Two of 10 samples (20%) were above the upper range (9.0 SU) of the pH water quality criteria for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Stafford

STREAM NAME: Accokeek Creek

HYDROLOGIC UNIT: 02070011

SEGMENT ID.: VAN-A29R_ACC01A00

SEGMENT SIZE: 4.2 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary to Accokeek Creek

RIVER MILE: 8.62

LATITUDE: 38.39639 **LONGTITUDE:** -77.40611

DOWNSTREAM LIMIT:

DESCRIPTION: End of the free flowing waters

RIVER MILE: ~4.42

LATITUDE: 38.37417 **LONGTITUDE:** -77.35472

Segment begins at the confluence of an unnamed tributary to Accokeek Creek, approximately 0.33 rivermiles downstream from Route 1 at rivermile 8.62, and continues downstream to the end of the free-flowing waters.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (2 of 18 samples - 11.1%) were recorded at DEQ's ambient water quality monitoring station (1aACC006.13) at Route 608 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: King George
STREAM NAME: Upper Machodoc Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAN-A30E_UMC02A02
SEGMENT SIZE: 0.36 - Sq. Mi.
INITIAL LISTING: 1998 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters
RIVER MILE: 6.42
LATITUDE: 38.28944 **LONGTITUDE:** -77.08111

DOWNSTREAM LIMIT:

DESCRIPTION: Rivermile 3.18 (approximately)
RIVER MILE: 3.18
LATITUDE: 38.30194 **LONGTITUDE:** -77.06083

The boundaries of the condemned area are described in VDH Notice and Description of Shellfish Area Condemnation Number 36, Upper Machodoc Creek, Section F, effective May 8, 2000, and are shown on the accompanying map. Upstream boundary ends with the end of tidal waters.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: pH

Sufficient violations of the pH water quality criteria were recorded at DEQ's ambient monitoring station (1aUMC004.43) at Route 218 to assess this segment as partially supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report. Two of 19 samples (10.5%) were below the lower range (6.0 - 9.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards. An additional factor that threatens the aquatic life use includes exceedances of the chlorophyll a screening level of 50 ug/L (3 of 6 samples - 50%).

Based on the shellfish condemnation dated May 8, 2000, as reported by the Virginia Department of Health, Division of Shellfish Sanitation, this segment was assessed as partially supporting the CWA's Shellfish Support Use goal in the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: King George
STREAM NAME: Williams Creek/ Upper Machodoc Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAN-A30E_WLL01A02
SEGMENT SIZE: 0.24 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE:

LONGTITUDE:

DOWNSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE:

LONGTITUDE:

The boundaries of the condemned area are described in VDH Notice and Description of Shellfish Area Condemnation Number 36, Upper Machodoc Creek, Sections C and D, effective May 12, 1998, and are shown on the accompanying map.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Sufficient violations of the dissolved oxygen (DO) water quality criteria were recorded at DEQ's ambient monitoring station (1aWLL001.30) at Route 206 to assess this segment as partially supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report. Three of 20 samples (15%) were below the minimum DO level (4.0 mg/L) for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards. Additional factors that threaten the aquatic life use include exceedances of the chlorophyll a screening level of 50 ug/L (3 of 6 samples - 50%), and the designation of these waters as nutrient enriched waters (NEW-14) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This segment is nested within the larger area affected by the NEW designation.

Based on the shellfish condemnation dated May 8, 2000, as reported by the Virginia Department of Health, Division of Shellfish Sanitation, 0.21 square miles of this segment were assessed as partially supporting the CWA's Shellfish Support Use goal in the 2002 305(b) report. The area considered partially supporting of shellfishing corresponds to Section D in the referenced condemnation.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: King George
STREAM NAME: Williams Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAN-A30R_WLL01A00
SEGMENT SIZE: 0.93 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary to Williams Creek
RIVER MILE: 2.85
LATITUDE: 38.35250 **LONGTITUDE:** -77.07222

DOWNSTREAM LIMIT:

DESCRIPTION: End of free-flowing waters
RIVER MILE: ~1.92
LATITUDE: 38.34639 **LONGTITUDE:** -77.05944

Segment begins at confluence of an unnamed tributary to Williams Creek, approximately 0.1 rivermiles downstream of Route 624, and continues downstream to the end of the free-flowing portion of Williams Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Sufficient violations of the dissolved oxygen (DO) water quality criteria were recorded at DEQ's ambient monitoring station (1aWLL002.21) at Route 301 to assess this segment as partially supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report. Three of 21 samples (14.3%) were below the minimum DO level (4.0 mg/L) for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards. Additional factors that threaten the aquatic life use in this segment include:

- (1) exceedances of the chlorophyll a screening level of 50 ug/L (3 of 6 samples);
- (2) exceedances of the phosphorous screening level of 200 ug/L (4 of 21 samples - 19%); and,
- (3) the waters are designated as nutrient enriched waters (NEW-14) in 9 VAC 25-260-350 of the Virginia Water Quality Standards. This segment is nested within the larger area affected by the NEW designation.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Westmoreland
STREAM NAME: Mattox Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAP-A31E_MAO01A98
SEGMENT SIZE: 0.64 - Sq. Mi.
INITIAL LISTING: 1996 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Tidal limit (Route 205 bridge)
RIVER MILE: 4.10
LATITUDE: 38.19920 **LONGTITUDE:** -77.00750

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary
RIVER MILE: 1.00
LATITUDE: 38.21080 **LONGTITUDE:** -76.97170

Described in VDH Notice and Description of Shellfish Condemnation Number 001B

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was initially listed in 1996 based on excessive fecal coliform standards at the Route 205 bridge (1AMAO004.08).

An exceedance of the NOAA ER-M screening value for Nickel was recorded in sediments collected at monitoring station 1AMAO004.08 on 5/18/1994. This exceedance resulted in an assessment of fully supporting but threatened of the Aquatic Life Use goal.

The segment was expanded during the year 2002 cycle to be coincident with VDH-DSS Shellfish Condemnation 001B, 6/29/1999.

IMPAIRMENT SOURCE Unknown

The source of the fecal coliform impairment in this segment is currently considered unknown.

Targeted monitoring is necessary to further delineate the extent of impairment and to characterize its causes and sources.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Westmoreland
STREAM NAME: Potomac River: Popes Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAP-A31E_POP01A98
SEGMENT SIZE: 0.41 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Tidal limit
RIVER MILE: 3.19
LATITUDE: 38.16810 **LONGTITUDE:** -76.93250

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Potomac River
RIVER MILE: 0.00
LATITUDE: 38.20150 **LONGTITUDE:** -76.93360

From the extent of tide to the mouth of Popes Creek

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Fecal coliform standard violation rate of 3/20 at 1APOP000.38
VDH-DSS Shellfish Condemnation 146, 4/27/1989

IMPAIRMENT SOURCE Unknown

Source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Westmoreland
STREAM NAME: Mattox Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAP-A31R_MAO01A98
SEGMENT SIZE: 34.03 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters
RIVER MILE: 12.60
LATITUDE: 38.22940 **LONGTITUDE:** -77.11010

DOWNSTREAM LIMIT:

DESCRIPTION: Tidal limit
RIVER MILE: 4.10
LATITUDE: 38.19890 **LONGTITUDE:** -77.01250

Mattox Creek watershed from its headwaters to the limit of tide.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: pH, Fecal Coliform

The segment was assessed during the 1998 cycle as threatened of the Aquatic Life use support goal based on pH violations at the Route 627 bridge. During the year 2002 cycle, the segment was downgraded to not supporting based on a violation rate of 21/27 at the Route 627 bridge (1AMAO007.46) and the results of a special study (pH 1/1 at 1AKIG000.62; pH 1/1 at 1AXHN000.58).

The segment was also assessed during the year 2002 cycle as not supporting of the Swimmable use goal based on a fecal coliform violation rate of 8/26 at 1AMAO007.46.

The segment length was revised during the year 2002 cycle to end at the tidal limit.

IMPAIRMENT SOURCE Natural Conditions, Unknown

The source of the impairment in this segment is currently considered unknown, but is suspected to be the result of forest leaf decay.

;

The source of the fecal coliform violations is considered unknown.

Targeted monitoring may be necessary to further delineate the extent of impairment and to characterize its causes and sources.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Westmoreland
STREAM NAME: Nomini Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAP-A32E_NOM04A00
SEGMENT SIZE: 2.25 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: 1ANOM001.00
RIVER MILE: 1.00
LATITUDE: 38.14940 **LONGTITUDE:** -76.72250

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth of Nomini Creek
RIVER MILE: 0.00
LATITUDE: 38.16220 **LONGTITUDE:** -76.71800

Downstream of river mile 1.0.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Assessed not supporting of the Aquatic Life use support goal because of a dissolved oxygen violation rate of 2/5 at 1ANOM000.50. A depth profile consisting of 5 samples was taken 8/29/1996. The deepest two samples violated the standard.

IMPAIRMENT SOURCE Stratification

Stratified water column indicated by data.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Westmoreland
STREAM NAME: Mill Creek
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAP-A33R_MIA01A00
SEGMENT SIZE: 3.95 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE:

LATITUDE: 37.94950 **LONGTITUDE:** -76.60000

DOWNSTREAM LIMIT:

DESCRIPTION: Courtney Millpond

RIVER MILE:

LATITUDE: 37.99900 **LONGTITUDE:** -76.57450

From its headwaters to Courtney Millpond.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: pH, Fecal Coliform

Mill Creek was assessed partially supporting of the Aquatic Life use support goal based on a pH standard violation rate of 3/27 at Route 202 (1AMIA004.12).

The segment was assessed partially supporting of the Swimmable use goal based on a fecal coliform violation rate of 4/26 at 1AMIA004.12.

IMPAIRMENT SOURCE Unknown

The source of the fecal coliform violations is considered unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Northumberland
STREAM NAME: Coan Mill Stream
HYDROLOGIC UNIT: 02070011
SEGMENT ID.: VAP-A34R_CON01A00
SEGMENT SIZE: 1.53 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: UT Confluence
RIVER MILE: 1.53
LATITUDE: 37.92370 **LONGTITUDE:** -76.49750

DOWNSTREAM LIMIT:

DESCRIPTION: Coan River Confluence
RIVER MILE: 0.00
LATITUDE: 37.93830 **LONGTITUDE:** -76.48680

From the confluence with the unnamed tributary at river mile 1.52 downstream to the Coan River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Coan Mill Stream is assessed partially supporting of the Aquatic Life use goal based on a fecal coliform violation rate of 3/26 at Route 360 (1ACON000.96).

The same segment is considered threatened of the Aquatic Life use goal because of a phosphorus screening value exceedance rate of 3/26 at 1ACON000.96.

IMPAIRMENT SOURCE Unknown

The source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Highland
STREAM NAME: Strait Creek
HYDROLOGIC UNIT: 02070001
SEGMENT ID.: VAV-B02R_STC01A00
SEGMENT SIZE: 3.26 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014
UPSTREAM LIMIT:

DESCRIPTION: Confluence with West Strait Creek
RIVER MILE: 3.26
LATITUDE: 38.44806 **LONGTITUDE:** -79.53500

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with S.Br. Potomac R.
RIVER MILE: 0.00
LATITUDE: 38.48222 **LONGTITUDE:** -79.50861

Segment begins at the confluence with West Strait Creek and ends at the confluence with the South Branch Potomac River

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1ASTC000.72 - Moderately Impaired Benthic Rating during the 2002 assessment period. The exact cause of the moderately impaired rating is not known.

IMPAIRMENT SOURCE Channelization

The moderately impaired benthic rating is believed to be due to channelization and riparian modifications.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Highland
STREAM NAME: West Strait Creek
HYDROLOGIC UNIT: 02070001
SEGMENT ID.: VAV-B02R_WSC02A00
SEGMENT SIZE: 0.35 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2010
UPSTREAM LIMIT:

DESCRIPTION: Discharge from Monterey STP
RIVER MILE: 3.85
LATITUDE: 38.41500 **LONGTITUDE:** -79.57306

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream to Burners Run
RIVER MILE: 3.50
LATITUDE: 38.41889 **LONGTITUDE:** -79.57028

Segment begins at the Monterey STP discharge and continues downstream to the confluence with Burners Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Monitoring station 1AWSC003.67 continues to receive severely impaired benthic ratings. Sampling was done in the spring & fall of 1999 and 2000. The cause of the impairment below the discharge is believed to be ammonia toxicity and/or solids deposition.

IMPAIRMENT SOURCE PS - STP - Town of Monterey

The STP is the source of the severe impairment.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Frederick
STREAM NAME: Hogue Creek
HYDROLOGIC UNIT: 02070004
SEGMENT ID.: VAV-B06R_HOC01A00
SEGMENT SIZE: 16.76 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 16.76
LATITUDE: 39.18694 **LONGTITUDE:** -78.37028

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Back Creek
RIVER MILE: 0.00
LATITUDE: 39.30333 **LONGTITUDE:** -78.22222

Segment begins at the headwaters and ends at the confluence with Back Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BHOC006.23 had a moderately impaired benthic rating during the 2002 assessment period. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE Unknown

The source of the benthic impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Frederick
STREAM NAME: Opequon Creek
HYDROLOGIC UNIT: 02070004
SEGMENT ID.: VAV-B08R_OPE01A00
SEGMENT SIZE: 33.7 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2001 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters
RIVER MILE: 57.26
LATITUDE: 39.17000 **LONGTITUDE:** -78.26000

DOWNSTREAM LIMIT:

DESCRIPTION: VA/WVA State Line
RIVER MILE: 23.56
LATITUDE: 39.26472 **LONGTITUDE:** -78.03333

Segment begins at Opequon Creek's headwaters and continues downstream to the VA/WVA State Line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting, Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:

 Fecal Coliform, Total Phosphorus - Threatened

1AOPE036.13 - 8 fecal violations out of 59 samples and 1AOPE025.10 - 7 fecal coliform violations out of 59 samples during the 2002 assessment period.

1AOPE036.13 - 16 total phosphorus values exceeded the screening value out of 59 samples. 1AOPE025.10 - 30 total phosphorus values exceeded the screening value out of 59 samples during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE

 NPS - Urban, Unknown - Threatened

The primary source is NPS urban runoff.

The source of the total phosphorus is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Frederick

STREAM NAME: Opequon Creek

HYDROLOGIC UNIT: 02070004

SEGMENT ID.: VAV-B09R_OPE01A00

SEGMENT SIZE: 8.82 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Abrams Creek

RIVER MILE: 32.38

LATITUDE:

LONGTITUDE:

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream to the W.VA. state line

RIVER MILE: 23.56

LATITUDE:

LONGTITUDE:

Segment begins at Opequon Creek's confluence with Abrams Creek and continues downstream to the VA/W.VA state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1AOPE029.61 was assessed as Partially Supporting for the 2002 assessment period.

IMPAIRMENT SOURCE NPS - Urban

NPS - Urban

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Frederick, Winchester, City of
STREAM NAME: Abrams Creek
HYDROLOGIC UNIT: 02070004
SEGMENT ID.: VAV-B09R_ABR01A00
SEGMENT SIZE: 10.8 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 10.80
LATITUDE: 39.20000 **LONGTITUDE:** -78.22000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Opequon Creek
RIVER MILE: 0.00
LATITUDE: 39.26472 **LONGTITUDE:** -78.03333

Segment begins at the headwaters and continues downstream to the confluence with Opequon Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

1AABR00.78 had a moderately impaired benthic rating during the 2002 assessment period.

1AABR000.78 - 9 fecal coliform violations out of 58 samples during the 2002 assessment period.

IMPAIRMENT SOURCE NPS - Urban

The primary source of the pollutants is NPS urban runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: Cockran Spring
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B10R_CSB01A00
SEGMENT SIZE: 0.8 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2002

UPSTREAM LIMIT:

DESCRIPTION: Begins at the discharge
RIVER MILE: 0.80
LATITUDE: 38.05361 **LONGTITUDE:** -79.25444

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Middle River
RIVER MILE: 0.00
LATITUDE: 38.05611 **LONGTITUDE:** -79.26833

Segment begins at the Castaline Trout Farm discharge and continues downstream until the confluence with Middle River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting 1998, 1

IMPAIRMENT CAUSE: General Standard (Benthic) 1998

A benthic survey in the Spring of 1995 indicated severely impaired waters below the Casta Line Trout Farm discharge. As a result the 0.80 miles of the stream below the discharge was assessed as not-supporting the Clean Water Act's Aquatic Life Use Support goal for the 1998 305(b) report. The exact cause of the impairment is believed to be organic enrichment and solids deposition. No follow-up sampling was done during the 2002 assessment period. A TMDL is being developed for this segment and is scheduled to be completed by April of 2002.

IMPAIRMENT SOURCE PS - Trout Farm - Castaline 1998

The primary source of the severe impairment is the Trout Farm discharge.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: Middle River
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B10R_MDL01A00
SEGMENT SIZE: 15.71 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 69.0
LATITUDE: 38.04806 **LONGTITUDE:** -79.26194

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Eidson Creek
RIVER MILE: 53.29
LATITUDE: 38.22056 **LONGTITUDE:** -79.13194

Segment begins at the headwaters and continues downstream to the confluence with the Eidson Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Swimmable Use - Partially Supporting, Aquatic Life Use - Partially Supporting - 1998

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic) 1998

1BMDL060.48 - 6 fecal coliform violations out of 13 samples and 1BMDL061.07 - 2 fecal coliform violations out of 13 samples during the 2002 assessment period.

A single benthic monitoring survey in 1995 indicated moderately impaired conditions in 2 stations bracketing Cockran Spring. The exact cause of the impairment is not known. The segment was overlisted by EPA in 1998. This segment was not sampled during the 2002 assessment.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife, Unknown 1998

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

The source of the benthic impairment is not known.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta, Staunton, City of
STREAM NAME: Lewis Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B12R_LEW01A00
SEGMENT SIZE: 9.55 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins just South of Staunton
RIVER MILE: 9.55
LATITUDE: 38.12861 **LONGTITUDE:** -79.10056

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Middle River.
RIVER MILE: 0.00
LATITUDE: 38.18889 **LONGTITUDE:** -78.96972

Segment begins just South of Staunton and continues downstream to the confluence with Middle River near Verona.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting, Aquatic Life Use - Threatened

IMPAIRMENT CAUSE:

 General Standard (Benthic), Fecal Coliform

1BLEW006.95 had a rating of severely impaired during the 2002 assessment period. The exact cause of the impairment is not known.

1BLEW002.91- 25 fecal coliform violations out of 58 samples during the 2002 assessment period.

1BLEW002.91 - A single sediment value exceeded the screening value for PCBs during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE

 NPS - Agriculture/Urban, NPS - Agriculture/Urban, Unknown - Threatened

The primary source of the fecal coliform bacteria and the problems with the benthic community are due to NPS urban and agricultural runoff.

The source of the sediment PCB is not known.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: Moffett Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B13R_MFT01A00
SEGMENT SIZE: 8.95 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Tunnel Branch
RIVER MILE: 8.95
LATITUDE: 38.30278 **LONGTITUDE:** -79.17778

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Middle River
RIVER MILE: 0.00
LATITUDE: 38.24389 **LONGTITUDE:** -79.08500

Segment begins with Moffett Creek's confluence with Tunnel Branch and continues downstream to its confluence with the Middle River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

1BMFT006.20 and 1BMFS005.11 had a benthic ratings of moderately impaired during the 2002 assessment period. The exact cause of the impairment is not known.

1BMFT006.20 - 6 fecal coliform violations out of 23 samples during the 2002 assessment period.

IMPAIRMENT SOURCE NPS - Agriculture, NPS - Agriculture/Wildlife

The primary source is NPS agricultural and wildlife runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: Christians Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B14R_CST01A00
SEGMENT SIZE: 31.45 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2002
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 31.45
LATITUDE: 38.02861 **LONGTITUDE:** -79.18722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Middle River
RIVER MILE: 0.00
LATITUDE: 38.19389 **LONGTITUDE:** -78.93472

Segment begins at Christians Creek's headwaters and continues downstream to its confluence with the Middle River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Swimmable Use - Partially Supporting, Aquatic Life Use - Threatened (16.54 Miles), 1

IMPAIRMENT CAUSE: Fecal Coliform, Total Phosphorus - Threatened (16.54 miles)

1BCST012.32 - 12 fecal coliform violations out of 58 samples and 1BCST021.76 - 25 fecal coliform violations out of 56 samples during the 2002 assessment period.

1BCST012.32 - 20 total phosphorus values exceeded the screening value out of 59 samples during the 2002 assessment period resulting in a threatened assessment for the lower 16.54 miles.

Due to favorable benthic ratings this segment was assessed as fully supporting the Aquatic Life Use for the 2002 assessment period. There were more than 2 consecutive benthic ratings indicating no impairment.

IMPAIRMENT SOURCE Agriculture\Wildlife\Human, Point Source - Threatened

The primary source of the fecal coliform is NPS agricultural and wildlife runoff. A TMDL is being developed for this segment and is scheduled for completion by 4/2002.

The source of the total phosphorus is believed to be a municipal point source.

The biological monitoring station was fully supporting the Aquatic Life Use during the 2002 assessment period.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: Middle River
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B15R_MDL01A00
SEGMENT SIZE: 17.57 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Confluence with Christians Creek
RIVER MILE: 17.57
LATITUDE: 38.19000 **LONGTITUDE:** -78.93000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River
RIVER MILE: 0.00
LATITUDE: 38.28000 **LONGTITUDE:** -78.85000

Segment begins at Middle River's confluence with Christians Creek and continues downstream to its confluence with North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BMDL001.83 - 7 fecal coliform violations out of 56 samples during the 2002 assessment.

IMPAIRMENT SOURCE NPS - Agriculture

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Augusta

STREAM NAME: Polecat Draft

HYDROLOGIC UNIT: 02070005

SEGMENT ID.: VAV-B15R_PCD01A00

SEGMENT SIZE: 7.47 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 7.47

LATITUDE: 38.22944 **LONGTITUDE:** -78.88528

DOWNSTREAM LIMIT:

DESCRIPTION: confluence with Middle River

RIVER MILE: 0.00

LATITUDE: 38.15528 **LONGTITUDE:** -78.89139

Segment begins at Polecat Draft's headwaters and continues downstream to its confluence with the Middle River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BPCD001.03 - 35 fecal coliform violations out of 54 samples during the 2002 assessment.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife

The primary source is NPS agricultural runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: North River
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B16R_NTH01A00
SEGMENT SIZE: 23.12 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 55.03
LATITUDE: 38.44583 **LONGTITUDE:** -79.26000

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the confluence with Freemason Run
RIVER MILE: 31.91
LATITUDE: 38.35139 **LONGTITUDE:** -79.09556

Segment begins at the headwaters and ends at the confluence with Freemason Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

1BNTH036.96 - 7 pH values out of 15 samples were below the minimum standard during the 2002 assessment period.

IMPAIRMENT SOURCE Atmospheric Deposition

The source of the low pHs is believed to be atmospheric deposition.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: North River
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B17R_NTH01A00
SEGMENT SIZE: 24.96 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2001 - 2010
UPSTREAM LIMIT:

DESCRIPTION: Confluence with Beaver Creek
RIVER MILE: 24.96
LATITUDE: 38.39000 **LONGTITUDE:** -79.02000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with South River
RIVER MILE: 0.00
LATITUDE: 38.29583 **LONGTITUDE:** -78.80833

Segment begins at North River's confluence with Beaver Creek and continues downstream to its confluence with the South River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Swimmable Use - Partially Supporting, Aquatic Life Use - Threatened (16.32 Miles)

IMPAIRMENT CAUSE: Fecal Coliform, Total Phosphorus - Threatened (16.32 Miles)

1BNTH021.00 - 9 fecal coliform violations out of 56 samples and 1BNTH014.08 - 20 fecal coliform violations out of 59 samples during the 2002 assessment period.

1BNTH014.08 - 39 total phosphorus values out of 60 samples exceeded the screening value resulting in a threatened assessment for the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife, NPS Ag/Pt Src - Threatened (16.32 Miles)

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

The sources of total phosphorus are NPS agricultural activities and a municipal STP.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Briery Branch
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B18R_BRY02A00
SEGMENT SIZE: 12.98 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 12.98
LATITUDE: 38.46889 **LONGTITUDE:** -79.21944

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Beaver Creek.
RIVER MILE: 0.00
LATITUDE: 38.39472 **LONGTITUDE:** -79.02167

Segment begins at the headwaters and ends at confluence with Beaver Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: pH

1BBRY006.94 - 2 pH values out of 14 samples were below the minimum standard during the 2002 assessment period.

IMPAIRMENT SOURCE Unknown

The source is not known, however the water quality standards need to be modified to reflect the correct geology of the area.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Beaver Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B18R_BVR01A00
SEGMENT SIZE: 5.57 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 5.57
LATITUDE: 38.46222 **LONGTITUDE:** -79.08833

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Briery Branch.
RIVER MILE: 0.00
LATITUDE: 38.39472 **LONGTITUDE:** -79.02167

Segment begins at the headwaters and ends at the confluence with Briery Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting 2.4 miles, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

1BBVR002.75 - Had a moderately impaired benthic rating during the 2002 assessment period. The exact cause of the impairment is not known. This segment extends 2.4 miles upstream from the confluence with Briery Branch. The biological monitoring station 1BBVR003.60 was not impaired during the 2002 assessment period.

1BBVR003.60 - 3 fecal coliform violations out of 12 samples during the 2002 assessment period.

IMPAIRMENT SOURCE NPS - Agriculture, NPS - Agriculture/Wildlife

The source of the benthic impairment is believed to be NPS agricultural activities.

The source of the fecal coliform bacteria is believed to be NPS agricultural and wildlife runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: Wolf Run
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B18R_WFR01A02
SEGMENT SIZE: 1.13 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins 1.13 miles above confluence
RIVER MILE: 1.13
LATITUDE: 38.42944 **LONGTITUDE:** -79.13889

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Briery Branch
RIVER MILE: 0.00
LATITUDE: 38.43806 **LONGTITUDE:** -79.12472

The segment begins 1.13 miles upstream from the confluence with Briery Branch and continues downstream to the confluence

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS monitoring station 2019 - Had a moderately impaired benthic rating. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham Co.
STREAM NAME: Mossy Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B19R_MOS01A00
SEGMENT SIZE: 9.65 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 9.65

LATITUDE: **LONGTITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River

RIVER MILE: 0.00

LATITUDE: **LONGTITUDE:**

Segment begins at Mossy Creek's headwaters in Mount Solon and continues downstream to its confluence with North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Aquatic Life Use - Partially Supporting, 1

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

1BMSS001.35 - 26 fecal coliform violations out of 56 samples during the 2002 assessment period.
1BMSS003.01 - Biological monitoring indicated Full Use Support in 1998, 2000 & 2002. However, it was still put on the plaintiffs list and EPA won't allow it to be Delisted.

IMPAIRMENT SOURCE NPS - Agriculture\Wildlife, Attachment B

The source is believed to be NPS agricultural and wildlife runoff.

There is not benthic impairment so there is no source.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Dry River
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B20R_DUR01A00
SEGMENT SIZE: 10.14 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 20.46
LATITUDE: 38.60583 **LONGTITUDE:** -79.12889

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Black Run confluence
RIVER MILE: 10.32
LATITUDE: 38.50361 **LONGTITUDE:** -79.05306

Segment begins at the headwaters and ends at the Black Run confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: pH

1BDUR010.66 - 3 pH values out of 16 samples were below the minimum standard during the 2002 assessment.

IMPAIRMENT SOURCE Unknown

The source is not known, however the water quality standards need to be modified to reflect the correct geology of the area.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Rockingham

STREAM NAME: Dry River

HYDROLOGIC UNIT: 02070005

SEGMENT ID.: VAV-B21R_DUR01A00

SEGMENT SIZE: 7.46 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 1998 - 2000

UPSTREAM LIMIT:

DESCRIPTION: Rt 613 Bridge at Lilly

RIVER MILE: 7.46

LATITUDE: 38.47000 **LONGTITUDE:** -79.01000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River

RIVER MILE: 0.00

LATITUDE: 38.39000 **LONGTITUDE:** -78.98000

Segment begins at the Rt 613 bridge at Lilly and continues downstream to the confluence with North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BDUR000.02 - 20 fecal coliform violations out of 60 samples during the 2002 assessment.

A TMDL has been approved by EPA for this segment.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Muddy Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B22R_MDD01A00
SEGMENT SIZE: 10.38 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 1998 - 2002

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 10.38
LATITUDE: 38.54528 **LONGTITUDE:** -78.92278

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Dry River
RIVER MILE: 0.00
LATITUDE: 38.42694 **LONGTITUDE:** -78.98167

Segment begins at Muddy Creek's headwaters and continues downstream to its confluence with Dry River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Drinking Water Use - Partially Supporting - 2.15 miles, Aquatic Life Use - Partially Supporting, Aquatic Life Use - Threatened

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic), Nitrate-Nitrogen - (2.15 Miles)

1BMDD000.40 - 46 fecal coliform violations out of 62 samples and 1BMDD005.81 - 38 fecal coliform violations out of 60 samples for the 2002 assessment period. A TMDL for the fecal coliform impairment has been approved by EPA.

1BMDD002.10 and 1BMDD005.81- These Biological monitoring stations were moderately impaired during the 2002 assessment. The exact cause of the impairment is not known.

1BMDD000.40 - One Nitrate-Nitrogen value exceeded the public drinking water standard of 10.0 mg/l during the 2002 assessment period. However, the segment was still assessed as partially supporting for Drinking water. A TMDL for the nitrate-nitrogen has been approved by EPA. The length of the nitrate-nitrogen segment was only 2.15 miles because this is where the public water supply designation ends.

1BMDD000.40 - 13 total phosphorus values exceeded the screening value out 62 samples and 1BMDD005.81 - 8 total phosphorus values exceeded the screening value out of 63 samples during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife, NPS - Agriculture, NPS - Ag/Pt Src - Threatened

The primary source of the fecal coliform bacteria and other pollutants is from NPS agricultural and wildlife runoff.

The source of the benthic impairment is believed to be agricultural activities.

The sources of nitrate-nitrogen are agricultural activities and an industrial point source.

The source of the total phosphorus is NPS agricultural activities and an industrial point source.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Rockingham, Augusta

STREAM NAME: North River

HYDROLOGIC UNIT: 02070005

SEGMENT ID.: VAV-B23R_NTH01A00

SEGMENT SIZE: 16.32 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Cooks Creek

RIVER MILE: 16.32

LATITUDE: **LONGTITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with South River

RIVER MILE: 0.00

LATITUDE: **LONGTITUDE:**

Segment begins at North River's confluence with Cooks Creek and continues downstream until its confluence with the South River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting - 1998

IMPAIRMENT CAUSE: General Standard (Benthic) 1998

The benthic monitoring station fully supported the Aquatic Life Use during the 2002 assessment period.

IMPAIRMENT SOURCE Unknown 1998

Unknown 1998

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Long Glade Run
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B24R_LGC01A00
SEGMENT SIZE: 10.74 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2001 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 10.74
LATITUDE: 38.27250 **LONGTITUDE:** -79.05639

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River
RIVER MILE: 0.00
LATITUDE: 38.36861 **LONGTITUDE:** -78.97167

Segment begins at the headwaters and continues downstream to its confluence with the North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BLGC000.96 - 7 fecal coliform violations out of 17 samples during the 2002 assessment period.

1BLGC000.96 - 2 total phosphorus values exceeded the screening value out of 18 samples during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife, NPS - Agriculture - Threatened

The primary source of the fecal coliform bacteria is NPS agricultural and wildlife runoff.

The primary source of the total phosphorus is NPS agricultural activity.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Cooks Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B25R_CKS01A00
SEGMENT SIZE: 17.36 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2002
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 13.32
LATITUDE: 38.48889 **LONGTITUDE:** -78.93528

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River
RIVER MILE: 0.00
LATITUDE: 38.34583 **LONGTITUDE:** -78.94000

Segment begins at Cooks Creek's headwaters and continues downstream to its confluence with the North River. The segment also includes four miles of an unnamed tributary locally known as Sunset Heights Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

1BCKS003.04 - Was moderately impaired during the 2002 assessment period. The exact cause of the impairment is not known. A TMDL is being developed and is scheduled to be completed by 4/2002.

1BCKS003.10 - 54 fecal coliform violations out of 61 samples during the 2002 assessment period. A TMDL is being developed and is scheduled to be completed by 4/2002.

1BCKS003.10 - 20 total phosphorus values exceeded the screening value out of 61 samples during the 2002 assessment period resulting in a threatened assessment.

1BXBU004.00 - 2 fecal coliform violations out of 2 samples.

1BXBU001.70 - Only one sample so data not assessed.

These stations are part of the Cooks Creek fecal coliform TMDL development study.

IMPAIRMENT SOURCE NPS - Agriculture, NPS - Agriculture/Wildlife, NPS - Agriculture - Threatened

The primary source of the benthic impairment is from NPS agricultural activities.

The primary source of fecal coliform is from NPS agricultural and wildlife runoff.

The primary source of total phosphorus is from NPS agricultural activities.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham, Harrisonburg, City of
STREAM NAME: Blacks Run
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B26R_BLK01A00
SEGMENT SIZE: 10.73 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2010
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 10.73
LATITUDE: 38.48000 **LONGTITUDE:** -78.86194

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Cooks Creek
RIVER MILE: 0.00
LATITUDE: 38.37222 **LONGTITUDE:** -78.93361

Segment begins at Blacks Run's headwaters and continues downstream until its confluence with Cooks Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

1BBLK005.62 - Severely Impaired Benthic Rating during the 2002 assessment period. The exact cause of the severely impaired rating is unknown. A TMDL is being developed for this parameter and is scheduled for completion by 4/2002.

1BBLK000.38 - 48 fecal coliform violations out of 61 samples during the 2002 assessment period. A TMDL is being developed for this parameter and is scheduled for completion by 4/2002.

IMPAIRMENT SOURCE NPS - Agriculture/Urban/Wildlife/Human, NPS - Agriculture/Urban

The primary source of fecal coliform is from NPS urban and agricultural runoff.

The source of the benthic impairment is believed to be NPS urban and agricultural activity.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Pleasant Run
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B27R_PLR01A00
SEGMENT SIZE: 6.31 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters
RIVER MILE: 6.31
LATITUDE: 38.40111 **LONGTITUDE:** -78.85611

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River
RIVER MILE: 0.00
LATITUDE: 38.34500 **LONGTITUDE:** -78.92556

Segment begins at Pleasant Run's headwaters and continues downstream to its confluence with North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting, Aquatic Life Use - Threatened

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

1BPLR000.08 - Severely Impaired Benthic Rating during the 2002 assessment period. The exact cause of the severely impaired rating is not known.

1BPLR000.16 - 47 fecal coliform violations out of 61 samples during the 2002 assessment period. A TMDL has been approved by EPA for fecal coliform.

1BPLR000.16 - 17 total phosphorus values exceeded the screening value out of 61 samples during the 2002 assessment period resulting in a threatened assessment.

1BPLR000.76 & 1BPLR001.30 - 2 fecal coliform violations out of 2 samples. These stations were part of the TMDL study.

IMPAIRMENT SOURCE NPS - Agriculture, NPS - Agriculture/Wildlife, NPS - Agriculture - Threatened

The primary source of the benthic impairment is from NPS agricultural activities.

The primary source of fecal coliform is from NPS agricultural and wildlife runoff.

The primary source of total phosphorus is from NPS agricultural activities.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: Naked Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B28R_NKD01A00
SEGMENT SIZE: 6.74 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2002

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 6.74
LATITUDE: 38.27000 **LONGTITUDE:** -79.00000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River
RIVER MILE: 0.00
LATITUDE: 38.30444 **LONGTITUDE:** -78.91444

Segment begins at Naked Creek's headwaters and continues downstream to its confluence with North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, 1

IMPAIRMENT CAUSE: Fecal Coliform

1BNKD000.80 - 22 fecal coliform violations out of 56 samples during the 2002 assessment period. A TMDL is being developed for this segment and is scheduled for completion by 4/2002.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife

The primary source of fecal coliform is from NPS agricultural and wildlife runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Lake Shenandoah
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B29L_00
SEGMENT SIZE: 38.4 - Acres
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE:

LONGTITUDE:

DOWNSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE:

LONGTITUDE:

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

1BCNG003.13 - 21 DO violations out of 21 samples below the thermocline during the 2002 assessment period.

1BCNG003.13 - 7 chlorophyll a values exceeded the screening value out of 7 samples during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE Stratification, Unknown - Threatened

The source of the low dissolved oxygen is thermal stratification

The source of the chlorophyll a is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Mill Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B29R_MIC01A00
SEGMENT SIZE: 8.73 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 5.95
LATITUDE: 38.36222 **LONGTITUDE:** -78.85444

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River
RIVER MILE: 0.00
LATITUDE: 38.30472 **LONGTITUDE:** -78.82194

Segment begins at Mill Creek's headwaters and continues downstream to its confluence with North River. It also includes Duck Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

1BMIC001.00 - 35 fecal coliform violations out of 61 samples during the 2002 assessment period. A TMDL has been approved by EPA for this segment.

1BDKR000.18 - 2 fecal coliform violations out of 2 samples. This station (Duck Run) was part of the Mill Creek fecal coliform development study.

1BMIC001.00 - A moderately impaired benthic rating during the 2002 assessment period. The exact cause of the moderately impaired benthic rating is not known.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife, NPS - Agriculture

The primary source of fecal coliform is from NPS agricultural and wildlife runoff.

The source of the benthic impairment is believed to be NPS agricultural activity.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: South River
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B30R_STH01A00
SEGMENT SIZE: 11.79 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 52.30
LATITUDE: 37.96333 **LONGTITUDE:** -79.20806

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Stony Run
RIVER MILE: 40.51
LATITUDE: 38.01833 **LONGTITUDE:** -79.08583

Segment begins at South River's headwaters and continues downstream to its confluence with Stony Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BSTH041.68 - 13 fecal coliform violations out of 55 samples during the 2002 assessment period.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: Back Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B31R_BCK01A00
SEGMENT SIZE: 13.59 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 13.59
LATITUDE: 37.89778 **LONGTITUDE:** -79.02500

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the South River confluence
RIVER MILE: 0.00
LATITUDE: 38.03917 **LONGTITUDE:** -78.93500

Segment begins at the headwaters and ends at the South River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BBCK000.78 - Moderately Impaired Benthic Rating during the 2002 assessment period.

IMPAIRMENT SOURCE Unknown

The source of the impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta
STREAM NAME: Mills Branch
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B31R_MLS01A02
SEGMENT SIZE: 8.07 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 8.07
LATITUDE: 37.91639 **LONGTITUDE:** -79.05778

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Back Creek confluence
RIVER MILE: 0.00
LATITUDE: 37.98167 **LONGTITUDE:** -78.95444

Segment begins at the headwaters and ends at the Back Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS 5084 had a severely impaired benthic rating during the 2002 assessment period.

IMPAIRMENT SOURCE Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Augusta, Waynesboro, City of

STREAM NAME: South River

HYDROLOGIC UNIT: 02070005

SEGMENT ID.: VAV-B32R_STH01A00

SEGMENT SIZE: 23.89 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the DuPont foot bridge

RIVER MILE: 23.89

LATITUDE: 38.06111 **LONGTITUDE:** -78.88639

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the North River confluence

RIVER MILE: 0.00

LATITUDE: 38.29611 **LONGTITUDE:** -78.80750

The segment begins at the DuPont foot bridge and continues downstream to the confluence with North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BSTH007.80 - 7 fecal coliform violations out of 55 samples during the 2002 assessment period.

1BSTH007.80 - one mercury sediment sample exceeded the screening criteria resulting in a threatened assessment..

IMPAIRMENT SOURCE NPS - Agriculture/Urban/Wildlife, Legacy - Threatened

The source is believed to be NPS urban, agriculture & wildlife runoff.

The source of the mercury is believed to be from a process that was abandoned by DuPont in the early 1950s.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Augusta, Rockingham, Page, Warren,
Waynesboro, City of

STREAM NAME: South River/S.F. Shen R./N.F. Shen R./Shenando

HYDROLOGIC UNIT: 02070005

SEGMENT ID.: VAV-B32R_STH01A00

SEGMENT SIZE: 128.82 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2000 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at DuPont foot bridge

RIVER MILE: 128.82

LATITUDE: 38.06111 **LONGTITUDE:** -78.88667

DOWNSTREAM LIMIT:

DESCRIPTION: Warrenton Power Dam

RIVER MILE: 0.00

LATITUDE: 38.95417 **LONGTITUDE:** -78.14833

Segment begins at the DuPont foot bridge over the South River in Waynesboro, continues downstream to the headwaters of the S.F. Shenandoah River (23.89 - 0.00) . The entire S.F. Shenandoah River is included (100.97 - 0.00). The segment ends on the main stem of the Shenandoah River at the Warrenton Power Dam (41.62 - 38.09). This segment also includes a small section of the lower N.F. Shenandoah River from its mouth upstream to the Riverton Dam (0.43 - 0.00).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury)

Mercury has been found in fish tissue and sediments at values high enough for the VDH to issue a fish consumption advisory.

1BSTH000.19 - 5 PAH result exceeded the screening value in 1996 in 1 fish species resulting in a Partially Supporting assessment assessment for 3.64 miles beginning at Rt 677 (Luray Ave) and continuing downstream to the confluence with the North Fork Shen River.

1BSSF000.19 - 6 total phosphorus values exceeded the screening value out of 58 samples and USGS 01631000 - 20 total phosphorus values exceeded the screening value out of 76 samples during the 2002 assessment period resulting in a threatened assessment for 9.53 miles. Rt 677 (Luray Ave) downstream to the confluence with the N.F Shen River (3.64 miles) and from Gooney Run downstream to the 619 bridge (5.89 miles).

IMPAIRMENT SOURCE VDH Health Advisory (Mercury), Unknown - Threatened, Unknown

The source of the Mercury is from a process that was abandoned by DuPont in the early 1950s.

The source of the benzo(k)fluoranthene in fish tissue is unknown.

The source of the total phosphorus is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Augusta, Waynesboro, City of
STREAM NAME: South River
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B32R_STH02A00
SEGMENT SIZE: 6.8 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2010
UPSTREAM LIMIT:

DESCRIPTION: Flow gage @ Lyndhurst in Waynesboro
RIVER MILE: 27.83
LATITUDE: 38.05750 **LONGTITUDE:** -78.90833

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Sawmill Run
RIVER MILE: 21.03
LATITUDE: 38.10333 **LONGTITUDE:** -78.86583

Segment begins at the Rt 664 bridge and continues downstream to the confluence with Sawmill Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BSTH021.72 had a moderately impaired benthic rating during the 2002 assessment period. The exact cause of the moderately impaired rating is unknown.

1BSTH026.12 - Mercury exceeded the proposed EPA criteria in one species tissue.

IMPAIRMENT SOURCE NPS - Urban, Legacy - Threatened

The source of the benthic impairment is believed to be NPS urban runoff.

The source of the Mercury is from a process that was abandoned by DuPont in the early 1950s.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: South Fork Shenandoah River
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B33R_SSF01A00
SEGMENT SIZE: 58.6 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 1998 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of North & South Rivers

RIVER MILE: 102.66

LATITUDE: **LONGTITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Hawksbill Creek

RIVER MILE: 44.06

LATITUDE: **LONGTITUDE:**

Segment begins at the North & South River confluence and continues downstream to the Hawksbill Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting, Aquatic Life Use - Partially Supporting, Aquatic Life Use - Threatened, Aquatic Life Use - Threatened

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic) 1998, TP Threatened/ Sed - Hg & DDT (32.88 miles)

1BSSF100.10 - 12 fecal coliform violations out of 56 samples during the 2002 assessment period.
1BSSF078.20 - 6 fecal coliform values violated the standard out of 56 samples during the 2002 assessment period.
1BSSF054.20 - 7 fecal coliform violations out of 59 samples during the 2002 assessment period.

DEQ's biological monitoring stations at river miles 101.10 and 53.05 indicated moderate impairment. In addition the benthic monitoring station at river mile 78.20 was fully supporting of the Aquatic Life Use during the 1988 assessment cycle. However, EPA allowed this segment to be added to Attachment B of the Consent Decree. Follow up sampling was not done therefore the segment must be added to the 2002 303(d) list. As a result 58.6 stream miles were assessed as partially supporting the Clean Water Act's Aquatic Life Use Support goal for the 1998 305(b) report. The cause of the moderately impaired ratings is unknown. These biological monitoring stations were not sampled during the 2002 assessment period.

1BSSF100.10 - 12 total phosphorus values exceeded the screening value out of 57 samples. 1BSSF078.20 - 20 total phosphorus values exceeded the screening value out of 59 samples. 1BSSF054.20 - 12 total phosphorus values exceeded the screening value out of 60 samples during the 2002 assessment period resulting in a threatened assessment.

1BSSF079.78 - 1 sediment sample exceeded the screening values in 1997 for DDT & Hg (32.88 miles) resulting in a threatened assessment.

IMPAIRMENT SOURCE Unknown, Unknown, Unknown - Threatened (32.88 miles)

The source(s) of the fecal coliform is unknown.

The source(s) of the benthic impairment is unknown.

The source(s) of the total phosphorus is unknown.

The source of the sediment DDT is unknown and the source of the mercury is legacy pollution.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Rockingham

STREAM NAME: Cub Run

HYDROLOGIC UNIT: 02070005

SEGMENT ID.: VAV-B34R_CBR01A00

SEGMENT SIZE: 13.94 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 13.94

LATITUDE: 38.44000 **LONGTITUDE:** -78.73000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the SF Shenandoah R.

RIVER MILE: 0.00

LATITUDE: 38.34000 **LONGTITUDE:** -78.72000

Segment begins at Cub Run's headwaters and continues downstream to its confluence with the S.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BCBR000.80 - 5 fecal coliform violations out of 23 samples during the 2002 assessment period.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural & wildlife runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Boone Run
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B35R_BON01A00
SEGMENT SIZE: 13.1 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 13.10
LATITUDE: 38.44889 **LONGTITUDE:** -78.72417

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the SF Shenandoah River
RIVER MILE: 0.00
LATITUDE: 38.43972 **LONGTITUDE:** -78.63472

Segment begins at the headwaters and ends at the South Fork Shenandoah River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BBON000.60 - 3 fecal coliform violations out of 15 samples during the 2002 assessment period.

1BBON000.60 - 11 total phosphorus values exceeded the screening value out of 15 samples during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE Unknown

The source of the fecal coliform is not known.

The source of the total phosphorus is not known.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Quail Run
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B35R_QAL01A00
SEGMENT SIZE: 4.89 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Massanutten STP discharge
RIVER MILE: 4.89
LATITUDE: 38.40500 **LONGTITUDE:** -78.71278

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Boones Run
RIVER MILE: 0.00
LATITUDE: 38.43000 **LONGTITUDE:** -78.64000

Segment begins at the Massanutten STP discharge and continues downstream to its confluence with Boones Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BQAL004.47 and 1BQAL005.13 had moderately impaired benthic rating during the 2002 assessment period. The exact cause of the moderately impaired rating is not known but is believed to be due to the discharge from the Massanutten STP.

1BQAL004.30 - 18 total phosphorus values exceeded the screening value out of 20 samples during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE PS - STP - Massanutten, Unknown - Threatened

The STP is the source of the benthic impairment.

The source of the total phosphorus is not known.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Rockingham & Page Co.

STREAM NAME: Naked Creek

HYDROLOGIC UNIT: 02070005

SEGMENT ID.: VAV-B36R_NAK01A00

SEGMENT SIZE: 12.46 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2000 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 12.46

LATITUDE: **LONGTITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the SF Shenandoah

RIVER MILE: 0.00

LATITUDE: **LONGTITUDE:**

Segment begins at the headwaters and continues downstream to its confluence with the S.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting - 1998

IMPAIRMENT CAUSE: General Standard (Benthic) 1998

1BNAK001.24 fully supported the Aquatic Life Use during the 2002 assessment period.

IMPAIRMENT SOURCE Unknown 1998

Unknown 1998

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Page

STREAM NAME: Mill Creek

HYDROLOGIC UNIT: 02070005

SEGMENT ID.: VAV-B38R_MLC01A00

SEGMENT SIZE: 6.78 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 6.78

LATITUDE: 38.66000 **LONGTITUDE:** -78.52000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with S.F. Shenandoah River

RIVER MILE: 0.00

LATITUDE: 38.62000 **LONGTITUDE:** -78.50000

Segment begins at Mill Creek's headwaters and continues downstream to its confluence with the S.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BMLC000.40 - 17 fecal coliform violations out of 59 samples during the 2002 assessment period.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Page

STREAM NAME: Pass Run

HYDROLOGIC UNIT: 02070005

SEGMENT ID.: VAV-B39R_PSS01A00

SEGMENT SIZE: 9.05 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 9.05

LATITUDE: 38.70861 **LONGTITUDE:** -78.45583

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Hawksbill Creek confluence

RIVER MILE: 0.00

LATITUDE: 38.65250 **LONGTITUDE:** -78.32694

Segment begins at the headwaters and ends at the Hawksbill Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BPSS000.64 - 6 fecal coliform violations out of 14 samples during the 2002 assessment period.

IMPAIRMENT SOURCE Unknown

The source of the fecal coliform bacteria is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Page
STREAM NAME: Hawksbill Creek
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B39R_HKS01A00
SEGMENT SIZE: 19.3 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 19.30
LATITUDE: 38.51944 **LONGTITUDE:** -78.44444

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the SF Shenandoah
RIVER MILE: 0.00
LATITUDE: 38.71417 **LONGTITUDE:** -78.45833

Segment begins at the headwaters and continues downstream to its confluence with the S.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Swimmable Use - Partially Supporting, Aquatic Life Use - Threatened (12.26 Miles)

IMPAIRMENT CAUSE:

 Fecal Coliform, General Standard (Benthic) - Threatened

1BHKS000.96 - 9 fecal coliform violations out of 58 samples and 1BHKS009.58 - 4 fecal coliform violations out of 13 samples during the 2002 sampling period.

1BHKS-FP8-SOS - This station was rated as having a medium probability for impairment during the 2002 assessment period resulting in a threatened assessment for the upper Hawksbill Creek.

IMPAIRMENT SOURCE

 NPS - Agriculture/Wildlife, CSO, Unknown - Threatened

The source is believed to be NPS agricultural and wildlife runoff and past CSO problems in the Town of Luray.

The source of the possible benthic problem is not known.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Warren, Clarke
STREAM NAME: S.F. Shenandoah River/N.F. Shenandoah River/S
HYDROLOGIC UNIT: 02070005
SEGMENT ID.: VAV-B41R_SSF01A00
SEGMENT SIZE: 51.1 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2002
UPSTREAM LIMIT:

DESCRIPTION: Begins at Rt 619 Bridge in Front R.
RIVER MILE: 51.10
LATITUDE: 38.91361 **LONGTITUDE:** -78.21000

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the VA/WVA state line
RIVER MILE: 0.00
LATITUDE: 39.15000 **LONGTITUDE:** -77.86000

Segment begins at the Rt 619 bridge over the S.F. Shenandoah River in Front Royal and ends at the Va/WVa state line (river miles 3.5 - 0.00 (S.F. Shenandoah River), 41.62 - 0.00 (Shenandoah River)). A short segment of the lower N.F. Shenandoah River is also included from its mouth upstream to the Passage Creek confluence (5.23 miles).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (PCBs)

PCBs have been found in fish tissue and sediments at values high enough for the VDH to recommend that fish not be consumed. A TMDL has been completed and approved by EPA for PCBs.

1BNFS000.57 - benzo(k)fluroranthene and ideno(1,2,3-cd) pyrene exceeded the screening value in 1 species of fish in 1996 resulting in a threatened assessment. 8 total phosphorus values exceeded the screening value out of 58 samples during the 2002 assessment period also resulting in a threatened assessment for 5.23 miles on the N.F. Shenandoah River.

1BSSF000.58 - benz(a)anthracene, chrysene, benzo(a)pyrene and ideno(1,2,3-cd) in 1 species resulting in a threatened assessment.

1BSHN022.86 - PCB in 3 species in 1999 [Not Supporting Assessment because of the VDH fish consumption ban]..

1BSHN028.15 - PCB in 1 species in 1999. [Not Supporting Assessment because of the VDH fish consumption ban].

1BSHN038.27 - PCB 4 species in 1999 & 5 species in 1996 [Not Supporting Assessment because of the VDH fish consumption ban]. Chlordane & Heptachlor. Epoxide in 1 species resulting in a threatened assessment. Benzo(k)flouranthene in 4 species resulting in a Partially Supporting assessment (5.28 miles).

1BSHN048.00 - 6 total phosphorus values out of 59 samples exceeded the screening value during the 2002 assessment period resulting in a threatened assessment for 27.37 miles on the Shenandoah River.

IMPAIRMENT SOURCE PS - Avtex, Unknown - Threatened, Unknown

The source of the PCBs was the former Avtex Fibers Plant in Front Royal.

The source of the total phosphorus is unknown.

The source of the PAHs is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham, Shenandoah
STREAM NAME: Holmans Creek
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B45R_HMN01A00
SEGMENT SIZE: 10.42 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 10.42
LATITUDE: 38.69583 **LONGTITUDE:** -78.79778

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with N.F. Shenandoah R.
RIVER MILE: 0.00
LATITUDE: 38.69778 **LONGTITUDE:** -78.65611

Segment begins at Holmans Creek's headwaters and continues downstream to its confluence with the N.F. Shenandoah River

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Aquatic Life Use - Partially Supporting, 1

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

1BHMN002.09 - 16 fecal coliform violations out of 58 samples during the 2002 assessment period. A TMDL has been completed and submitted to EPA for fecal coliform.

1BHMN002.09, 1BHMN005.03 and 1BHMN007.59 had moderately impaired benthic ratings during the 2002 assessment period. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife/Human, NPS - Agriculture

The primary source of the fecal coliform is NPS agriculture, wildlife and human.

The source of the benthic impairment is believed to be NPS agricultural activity.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Long Meadow Run
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B45R_LOM01A00
SEGMENT SIZE: 8.62 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 8.62
LATITUDE: 38.54028 **LONGTITUDE:** -78.80056

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the N. Fork Shen River
RIVER MILE: 0.00
LATITUDE: 38.63611 **LONGTITUDE:** -78.74944

Segment begins at the headwaters and ends at the N. Fork Shen River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BLOM000.24 - Had a moderately impaired benthic rating during the 2002 assessment period. The exact cause of the moderately impaired benthic rating is not known.

IMPAIRMENT SOURCE NPS - Agriculture

The source is believed to be NPS agricultural activity.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham, Shenandoah
STREAM NAME: North Fork Shenandoah River
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B45R_NFS02A00
SEGMENT SIZE: 13.18 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Linville Creek
RIVER MILE: 87.72
LATITUDE: 38.61972 **LONGTITUDE:** -78.79444

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Holmans Creek
RIVER MILE: 74.54
LATITUDE: 38.72806 **LONGTITUDE:** -78.63333

Segment begins at the N.F. Shenandoah River's confluence with Linville Creek and continues downstream to its confluence with Holman's Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BNFS081.42 - 8 fecal coliform violations out of 59 samples during the 2002 assessment period.

1BNFS081.42 - 13 total phosphorus values exceeded the screening value out of 60 samples during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife, Unknown - Threatened

The primary source of the fecal coliform bacteria is NPS agricultural and wildlife runoff.

The source of the total phosphorus is not known.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Turley Creek
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B45R_TRL01A00
SEGMENT SIZE: 4.04 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 4.04
LATITUDE: 38.59139 **LONGTITUDE:** -78.88611

DOWNSTREAM LIMIT:

DESCRIPTION: N. Fork Shen River confluence
RIVER MILE: 0.00
LATITUDE: 38.63333 **LONGTITUDE:** -78.84222

Segment begins at the headwaters and ends at the N. Fork Shenandoah River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

1BTRL000.02 - 6 fecal coliform violations out of 23 samples during the 2002 assessment period.

1BTRL000.02 - Had a moderately impaired benthic rating during the 2002 assessment period. The exact cause of the moderately impaired rating is not known.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife, NPS - Agriculture

The primary source of the fecal coliform is NPS agricultural and wildlife runoff.

The source of the benthic impairment is believed to be NPS agricultural activity.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: North Fork Shenandoah River
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B45R_NFS03A00
SEGMENT SIZE: 4.86 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2010
UPSTREAM LIMIT:

DESCRIPTION: Confluence with Runion Creek
RIVER MILE: 92.58
LATITUDE: 38.64444 **LONGTITUDE:** -78.86722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Linville Creek
RIVER MILE: 87.72
LATITUDE: 38.62028 **LONGTITUDE:** -78.79361

Segment begins at the N.F. Shenandoah River's confluence with Runion Creek and continues downstream to its confluence with Linville Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Attachment B

IMPAIRMENT CAUSE: General Standard (Benthic)

1BNFS094.51 - Benthic Monitoring during the 1998 assessment cycle indicated the Aquatic Life Use was fully supporting. However, EPA allowed this segment to be added to Attachment B of the Consent Decree. Follow up sampling was not done therefore the segment must be listed on the 2002 303(d) list.

IMPAIRMENT SOURCE Attachment B

Attachment B

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Linville Creek
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B46R_LNV01A00
SEGMENT SIZE: 13.58 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2001 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 13.58
LATITUDE: 38.46806 **LONGTITUDE:** -78.90139

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the NF Shenandoah
RIVER MILE: 0.00
LATITUDE: 38.61972 **LONGTITUDE:** -78.79444

Segment begins at Linville Creek's headwaters and continues downstream to its confluence with the N.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

1BLNV001.22 - 19 fecal coliform violations out of 60 samples during the 2002 assessment period.

1BLNV000.71 - Had a moderately impaired benthic rating during the 2002 assessment period. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE NPS - Agriculture, NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

The source of the benthic impairment is believed to be from NPS agricultural activity.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Fridley Run
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B47R_FDY01A02
SEGMENT SIZE: 2.4 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 2.40
LATITUDE: 38.46500 **LONGTITUDE:** -78.71694

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Mountain Run confluence
RIVER MILE: 0.00
LATITUDE: 38.49444 **LONGTITUDE:** -78.70333

Segment begins at the headwaters and ends at the Mountain Run confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS - biological monitoring stations 4074 & 4072 had moderately impaired benthic ratings during the 2002 assessment period. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN

CITY/COUNTY: Shenandoah Co., Rockingham Co.

STREAM NAME: Smith Creek

HYDROLOGIC UNIT: 02070006

SEGMENT ID.: VAV-B47R_SMT01A00

SEGMENT SIZE: 22.39 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Lacey Springs

RIVER MILE: 22.39

LATITUDE: **LONGTITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with N.F. Shenandoah R.

RIVER MILE: 0.00

LATITUDE: **LONGTITUDE:**

Segment begins at Smith Creek's confluence with Lacey Springs and continues downstream to its confluence with the N.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting 1998

IMPAIRMENT CAUSE: General Standard (Benthic) 1998

The biological monitoring station at river mile 5.71 was assessed as fully supporting during the 2002 assessment period.

IMPAIRMENT SOURCE NPS - Agriculture 1998

NPS - Agriculture 1998

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham, Shenandoah
STREAM NAME: Smith Creek
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B47R_SMT01A00
SEGMENT SIZE: 31.18 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2001 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 31.18
LATITUDE: 38.47694 **LONGTITUDE:** -78.77778

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with N.F. Shenandoah R.
RIVER MILE: 0.00
LATITUDE: 38.72806 **LONGTITUDE:** -78.63333

Segment begins at Smith Creek's headwaters and continues downstream to its confluence with the N.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Swimmable Use - Partially Supporting, Aquatic Life Use - Threatened (15.70 Miles)

IMPAIRMENT CAUSE: Fecal Coliform, Total Phosphorus - Threatened (15.7 miles)

1BSMT004.60 - 10 fecal coliform violations out of 59 samples and 1BSMT023.18 - 8 fecal coliform violations out of 23 samples during the 2002 assessment period.

1BSMT004.60 - 10 total phosphorus values exceeded the screening value out of 60 samples during the 2002 assessment period resulting in a threatened assessment for 15.7 miles of the lower Smith Creek.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife, Unknown - Threatened (15.7 miles)

The primary source of the fecal coliform is from NPS agricultural runoff and wildlife runoff.

The source of the total phosphorus is not known.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Lacey Spring
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B47R_LAC01A00
SEGMENT SIZE: 0.2 - Miles
INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2002

UPSTREAM LIMIT:

DESCRIPTION: Shenandoah Fisheries discharge
RIVER MILE: 0.20
LATITUDE: 38.54250 **LONGTITUDE:** -78.75306

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Smith Creek
RIVER MILE: 0.00
LATITUDE: 38.54083 **LONGTITUDE:** -78.76028

Segment begins at the Shenandoah Fisheries discharge to Lacey Springs and continues downstream to its confluence with Smith Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, 1

IMPAIRMENT CAUSE: General Standard (Benthic)

A benthic survey in the Spring of 1995 indicated severely impaired waters below the Shenandoah Fisheries discharge. As a result the 0.20 miles of the stream below the discharge was assessed as not supporting the Clean Water Act's Aquatic Life Use Support goal for the 1998 305(b) report. A TMDL for this segment is being developed and is scheduled to be completed by 4/2002.

IMPAIRMENT SOURCE PS - Trout Farm - Shen. Fisher

The source is the discharge from Shenandoah Fisheries. A TMDL is being developed for this segment and is scheduled for completion by 4/2002.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Rockingham
STREAM NAME: Mountain Run
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B47R_MTN01A00
SEGMENT SIZE: 5.41 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 5.41
LATITUDE: 38.50111 **LONGTITUDE:** -78.69667

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Smith Creek confluence
RIVER MILE: 0.00
LATITUDE: 38.50472 **LONGTITUDE:** -78.75139

Segment begins at the headwaters and ends at the Smith Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS biological monitoring station 4015 had a moderately impaired benthic rating during the 2002 assessment period.

IMPAIRMENT SOURCE Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Shenandoah Co.
STREAM NAME: Mill Creek
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B48R_MIL01A00
SEGMENT SIZE: 14.99 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2010
UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 14.99

LATITUDE: **LONGTITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the N.F. Shen R.

RIVER MILE: 0.00

LATITUDE: **LONGTITUDE:**

Segment begins at Mill Creek's headwaters and continues downstream to its confluence with the N.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting, Aquatic Life Use - Partially Supporting 1998 (7.60 m.), Aquatic Life Use - Threatened (7.39 miles)

IMPAIRMENT CAUSE: Fecal Coliform, General Standard Bentiic (1998 7.6 miles), General Standard Bentiic (1998 739 miles)

1BMIL002.20 - 3 fecal coliform violations out of 23 samples during the 2002 assessment period.

1BMIL002.20 fully supported the aquatic life use during the 2002 assessment based on its benthic ratings for segment VAV-B48R_MIL01A00

1BMIL-BS11-SOS & 1BMIL-BS5-SOS- Had a moderate probability for impairment for segment MIL02A00

1BMIL-BS6-SOS - Had a high probability for impairment during the 2002 assessment period resulting in a threatened assessment for the upper 7.39 miles.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife, Unknown - 1998, Unknown - Threatened (7.39 Miles)

The primary source of the pollutants is from NPS agricultural runoff and wildlife runoff.

The benthics in segment VAV-B48R_MIL01A00 were fully supporting in 2002.

The source of the SOS benthic ratings is not known.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Shenandoah
STREAM NAME: Laurel Run
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B49R_LAR02A00
SEGMENT SIZE: 0.75 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 0.75
LATITUDE: 38.91472 **LONGTITUDE:** -78.72917

DOWNSTREAM LIMIT:

DESCRIPTION: Ends near the intersection of 624,622,609
RIVER MILE: 0.00
LATITUDE: 38.90333 **LONGTITUDE:** -78.73083

Segment begins at the headwaters and ends near the intersection of Rt 624, 622 & 609.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS 4047 - Had a severely impaired benthic rating during the 2002 assessment period. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE Atmospheric Deposition

The source is believed to be atmospheric deposition.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Shenandoah
STREAM NAME: Stony Creek
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B49R_STY01A00
SEGMENT SIZE: 5.65 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2010
UPSTREAM LIMIT:

DESCRIPTION: Begins at the George's Chicken Discharge

RIVER MILE: 5.65

LATITUDE: 38.85972 **LONGTITUDE:** -78.62083

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the N.F. Shen R confluence

RIVER MILE: 0.00

LATITUDE: 38.82222 **LONGTITUDE:** -78.54889

Segment begins at the George's Chicken Discharge and ends at the North Fork confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BSTY001.22 - 7 fecal coliform violations out of 58 samples during the 2002 assessment period.

1BSTY001.22 - 39 total phosphorus values exceeded the screening value out of 57 samples during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE NPS - Agriculture/Wildlife, Ind Pt Src - Threatened

The source is believed to be NPS agricultural and wildlife runoff.

The source of the total phosphorus is believed to be an industrial point source.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Shenandoah
STREAM NAME: Toms Brook
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B50R_TMB01A00
SEGMENT SIZE: 7.18 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 7.18
LATITUDE: 38.96000 **LONGTITUDE:** -78.49000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with N.F. Shen R
RIVER MILE: 0.00
LATITUDE: 38.92389 **LONGTITUDE:** -78.41944

Segment begins at Toms Brook's headwaters and continues downstream until its confluence with the N.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BTMB000.54 - Had a moderately impaired benthic rating during the 2002 assessment period. The exact cause of the moderately impaired rating is not known.

IMPAIRMENT SOURCE Unknown

The source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Shenandoah
STREAM NAME: Narrow Passage Creek
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B50R_NPC01A00
SEGMENT SIZE: 10.69 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 10.69
LATITUDE: 38.93056 **LONGTITUDE:** -78.61722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the N.F. Shen R.
RIVER MILE: 0.00
LATITUDE: 38.84583 **LONGTITUDE:** -78.52861

Segment begins at the headwaters and ends at the North Fork confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BNPC000.02 - 2 fecal coliform violations out of 13 samples during the 2002 assessment period.

IMPAIRMENT SOURCE Unknown

The source of the fecal coliform bacteria is not known.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Shenandoah
STREAM NAME: Orndorff Spring Branch
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B52R_OSB01A00
SEGMENT SIZE: 0.15 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** 2000 - 2002

UPSTREAM LIMIT:

DESCRIPTION: Orndorff Trout Farm discharge
RIVER MILE: 0.15
LATITUDE: 38.99111 **LONGTITUDE:** -78.51222

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Cedar Creek
RIVER MILE: 0.00
LATITUDE: 38.99056 **LONGTITUDE:** -78.51167

Segment begins at the Orndorff Trout Farm discharge and continues downstream to the confluence with Cedar Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, 1

IMPAIRMENT CAUSE: General Standard (Benthic)

DEQ's biological monitoring station at river mile 0.01 indicated severe impairment. Therefore 0.15 miles of this stream was assessed as not supporting the Clean Water Act's Aquatic Life Use Support Goal for the 1998 305(b) report. The cause of the impairment below the discharge is organic enrichment and solids deposition. A TMDL is being developed for this segment and is scheduled for completion by 4/2002

IMPAIRMENT SOURCE PS - Trout Farm - Orndorff

The source is the trout farm.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Shenandoah
STREAM NAME: Cedar Creek
HYDROLOGIC UNIT: 02070006
SEGMENT ID.: VAV-B52R_CDR04A00
SEGMENT SIZE: 2.53 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 39.03
LATITUDE: 38.95139 **LONGTITUDE:** -78.58722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Duck Run
RIVER MILE: 36.50
LATITUDE: 39.10056 **LONGTITUDE:** -78.39333

Segment begins at the headwaters and ends at the confluence with Duck Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS 4003 - Had a severely impaired benthic rating during the 2002 assessment period. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE Atmospheric Deposition

The source of the impairment is believed to be due to Atmospheric Deposition .

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Frederick
STREAM NAME: Lake Frederick
HYDROLOGIC UNIT: 02070007
SEGMENT ID.: VAV-B56RL_00
SEGMENT SIZE: 115.2 - Acres
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE:

LONGTITUDE:

DOWNSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE:

LONGTITUDE:

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

1BCRO009.19 - 42 DO Violations out of 43 samples below the thermocline during the 2002 assessment period.

1BCRO009.79 - 5 DO Violations out of 12 samples below the thermocline during the 2002 assessment period.

7 Chlorophyll a values out of 7 samples were below the screening value at both monitoring stations and 1BXCE000.63 during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE Stratification, Unknown - Threatened

The source of the low dissolved oxygen is thermal stratification

The source of the chlorophyll a is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Frederick
STREAM NAME: Crooked Run
HYDROLOGIC UNIT: 02070007
SEGMENT ID.: VAV-B56R_CRO01A00
SEGMENT SIZE: 12.83 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters
RIVER MILE: 12.83
LATITUDE: 39.07250 **LONGTITUDE:** -78.16639

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Shenandoah River
RIVER MILE: 0.00
LATITUDE: 38.95694 **LONGTITUDE:** -78.18222

Segment begins at the headwaters and ends at the Shenandoah River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BCRO002.75 - 2 fecal coliform violations out of 16 samples during the 2002 assessment period.

IMPAIRMENT SOURCE Unknown

The source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: POTOMAC AND SHENANDOAH RIVER BASIN
CITY/COUNTY: Clarke
STREAM NAME: Spout Run
HYDROLOGIC UNIT: 02070007
SEGMENT ID.: VAV-B57R_SPR01A00
SEGMENT SIZE: 3.65 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters
RIVER MILE: 3.65
LATITUDE: 39.07000 **LONGTITUDE:** -78.04000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Shenandoah River
RIVER MILE: 0.00
LATITUDE: 39.07083 **LONGTITUDE:** -78.00306

Segment begins at Spout Run's headwaters and continues downstream to its confluence with the Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BSPR000.40 - Had a moderately impaired benthic rating during the 2002 assessment period. The exact cause of the moderately impaired rating is not known.

1BSPR000.40 was assessed as fully supporting the swimming use during the 2002 assessment period.

IMPAIRMENT SOURCE NPS - Agriculture

The primary source is NPS agricultural activity.